

## TEACHING FACTORY LEARNING MANAGEMENT IN DEVELOPING ENTREPRENEURIAL SPIRIT IN STUDENTS: THE STUDY OF SMK MUHAMMADIYAH GAMPING YOGYAKARTA

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### Abstrak

*Teaching factory learning plays an important role in fostering an entrepreneurial spirit which is the process of developing and applying creativity and new innovations to improve the economy. This study aims to determine the management of teaching factory learning in developing the entrepreneurial spirit of students at SMK Muhammadiyah Gamping. This research is descriptive qualitative research. The research method used is a case study method with data collection through in-depth interviews. The results showed that the management of teaching factory learning has been running well which can be seen from the optimal running of each management function. On the other hand, a more specific development of teaching factory learning is needed to provide a more real picture for each student, especially in developing an entrepreneurial spirit. With this research, an overview of the proper, correct, and effective teaching factory learning implementation practices can be known more deeply.*

**Keywords:** *Learning Management, Student Development, Teaching Factory, Entrepreneurship*

### INTRODUCTION

Vocational education is needed during rapid industrial development and movement. Vocational education is one of the right choices in developing children's talents to be ready to work in industry or entrepreneurship, or even continue their studies (Napitupulu, 2022). In addition, vocational education can also help improve the quality of human resources in Indonesia, so that they can contribute to economic growth and national development and be able to compete in the global sphere (Commonwealth Secretariat,

2017; Sudira P, 2014; 2016, Antony, 2023). In other words, vocational education is needed to form qualified and globally competitive human beings.

Vocational education has challenges in preparing a workforce that is in line with industry needs, one of which is the quality and relevance of vocational education and training (Napitupulu, 2022). This is reflected in the high gap between industry needs and the availability of workers who have the skills, experience and knowledge that are in line with industry needs. Worse, the gap is

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mostly contributed by graduates of Vocational High Schools (SMK), also known as vocational schools. In February 2022, the figure reached 11.1 percent of the total open unemployment (Datanesia, 2022).

Not only stopping there, Rojaki (2023) states that the partnerships carried out with the world of work are not optimal, which has an impact on the low quality of graduates which makes low absorption in the industry. This further emphasizes the research findings of Irwanto (2021) that alignment between the world of work and the industrial world is needed so that vocational education graduates can be absorbed in the world of work, because students learn directly with the conditions/equipment in the industry.

Furthermore, research conducted by Hasibudan E & Handayani D (2021) said that 68.4 percent of educational backgrounds were not in line with the qualifications of the work performed. This means that most of the workforce performs activities or work outside of their competence. The facts above hint at the lack of quality of vocational education in Indonesia.

On the other hand, various offers to improve the quality of vocational education graduates often appear. The government has specifically enacted Presidential Regulation No. 68 of 2022 on the Revitalization of Vocational Education and Vocational Training. The aim is not only as an effort to revitalize vocational education in a comprehensive, sustainable, integrated, and coordinated manner but also as an effort to prepare competent, productive, and globally

competitive human resources so that they can contribute greatly to the ideals of the Golden Indonesia 2045 (Directorate General of Vocational Education, 2022). This is what makes the learning process in vocational education important to direct students to be creative and innovative to make Indonesia an attractive port for global investment.

Not only that, but efforts also to develop the quality of vocational graduates who link and match with the world of work need to be carried out by the government by forming a vocational education center service called the Directorate General of Vocational Education. Through this directorate, vocational education is increasingly directed to form the independence of students through various entrepreneurial activities integrated with teaching factory practices.

Teaching factory is a concept of learning in vocational schools that adapts to the world of work or industry. In other words, teaching factory refers to the standards and procedures that apply in industry and is implemented in an atmosphere like industry (Kemendikbudristek, 2022; Muhitasari & Purnami, 2018). The actual form of teaching factory is the provision of services and production in accordance with existing competencies and is commonly referred to as Production and Service Units. Through teaching factory, students can practice soft skills in learning, collaborate, and practice interpersonal communication skills, which are important competencies needed in the 21st century (Sudira P, 2017).

On the other hand, the implementation of the teaching factory is highly dependent on the implementation of management functions carried out in schools. This is because the school is a system that needs to be well managed and directed. Therefore, schools need good management. A school without good management will have a negative impact on every component in it, including the development of students' abilities. Therefore, it is very important to evaluate the management function in the school environment.

Terry dan Ruwe (2019) Management functions consist of planning, organizing, actuating, and controlling. In simple terms, planning is understood as the activity of setting organizational goals accompanied by identifying resources and effective strategies. Organizing is the activity of arranging organizational resources optimally so that they can support organizational goals. Actuating is the process of carrying out the process or implementation of each strategy to achieve organizational goals effectively. Controlling is the process of monitoring or supervising each organizational resource so that it can run effectively. Controlling can also be understood as an evaluation process for every process that occurs in the organization (Robbin & Coulter, 2018).

Management functions are needed to achieve organizational goals-which have been set before-effectively and efficiently by optimizing various resources in it (Budi, 2018) If the management of teaching factory learning is done well, it will have a positive impact on the development of students in

pursuing their future careers (Sutarto, personal communication, 3 Mei 2023).

SMK Muhammadiyah Gamping is one of the vocational schools that implements teaching factory in the learning process through a service production unit in the field of fashion. Interestingly, the teaching factory learning process can develop the entrepreneurial spirit of graduates. This is evident from the number of graduates who pursue independent entrepreneurship. In fact, the figure reaches 10 percent (Okta, 2021). It is at this point that the important role of learning management is needed to provide experience and encourage students to develop the potential that exists in themselves. Learning management in the teaching factory is needed to increase the motivation of students in the learning process with real work practices and culture. This situation can have a positive impact on increasing the competence of graduates who are able to develop through learning in the production unit.

On the other hand, research with the theme of teaching factory learning management is still not widely conducted. Various studies in the last five years have focused more on the concept of education management and the impact of entrepreneurship education in creating new business opportunities. Whereas the essence of entrepreneurship in education is the process of fostering student creativity and innovation in entrepreneurship to be able to read opportunities and create added value to an item creatively and efficiently (Isrososiawan, 2023, Suwithi, 2019). In other

words, entrepreneurship education is needed to foster students' entrepreneurial spirit.

Therefore, researchers argue that research related to teaching factory learning management is important to do so that it can provide new knowledge about effective teaching factory implementation practices for the development of students' entrepreneurial spirit. Moreover, entrepreneurship education is designed to increase students' independence and awareness of entrepreneurship as a career opportunity (Suwithi, 2019).

This study aims to evaluate the management of teaching factory learning in developing the entrepreneurial spirit of students at SMK Muhammadiyah Gamping. This research is expected to contribute to providing an overview related to teaching factory learning management practices that are appropriate, correct, and effective so that the entrepreneurial spirit can be achieved well.

## RESEARCH METHODS

### A. Type Of Research

This research is descriptive qualitative research. Qualitative research emphasizes the reasoning and definition of a situation; and is used in matters relating to everyday life. (Rukin, 2019). Qualitative research was used in this study because of its advantages in exploring and understanding a complex issue or problem that is happening. In addition, qualitative research is based on accurate findings - not only based on the researcher's point of view or the participants' point of

view. Thus, qualitative research has other advantages, namely the validity of the findings (Creswell & Creswell, 2018).

In this research, the method used is a case study. Case studies are often used to examine phenomena in the context of the real world in depth (Yin, 2018). Case studies are widely used to evaluate something so that in-depth analysis is needed (Creswell & Creswell, 2018).

### B. Research Subjects

The subjects in this study were two schoolteachers and two students of SMK Muhammadiyah Gamping. The criteria for teachers in the study were based on two criteria. First, they have assisted teaching factory learning for three semesters. Second, they understand the problems related to the implementation of teaching factory. Meanwhile, two students were involved in this study because they were directly involved in learning practices in the classroom. The researcher needed appropriate subjects to be able to answer the research questions.

### C. Research Instruments

In this research, primary data was collected through semi-structured in-depth interviews with each informant who became the subject of the research. In semi-structured in-depth interviews, interview guidelines (in general or outline) are used as a guide for conducting the interviews (Gronmo, 2020). The interview process was conducted online through Zoom meetings on May 25 and 26, 2023.

**D. Data Analysis**

After collecting enough or all the data needed in the study, the researcher then needs to analyze the data (Shkedi, 2019). The data analysis technique used in this research is qualitative data analysis technique. The data analysis in this study refers to the Miles and Huberman model which states that the data analysis consists of data condensation, data display, and conclusion (Miles, Huberman

dan Saldana, 2014; Nahumury dan Antony, 2020).

**RESULTS AND DISCUSSION**

Based on interviews conducted with all interviewees, the following data were obtained. The data provides an overview of the efforts made by the school to develop the entrepreneurial spirit through teaching factory.

Table 1. Interview Results

| Planning                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Teacher                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Student                                                                                                                                                                                                                                                                                                                |
| <ul style="list-style-type: none"> <li>- Teaching factory learning in our school is planned to the maximum, both in terms of objectives and learning outcomes as well as related to regulatory provisions and the demands of developments or trends in the needs of the industrial world.</li> <li>- Teaching factory learning is carried out by jointly making plans and preparations so that the materials provided are synchronized with the existing curriculum, both related to lesson plans, annual programs and student activities.</li> </ul> | <ul style="list-style-type: none"> <li>- I feel that entrepreneurship learning implemented at school is in line with the needs and demands of the world of work.</li> <li>- Better learning preparation makes learning outcomes more optimal and makes it easier for us to explore more optimally.</li> </ul>          |
| Organizing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                        |
| Teacher                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Student                                                                                                                                                                                                                                                                                                                |
| <ul style="list-style-type: none"> <li>- In teaching factory learning, schools have certainly grouped students according to their fields. This is needed so that students can focus on each task and responsibility given to them.</li> <li>- Teaching factory learning is certainly carried out in a good organization, especially in the process of division of tasks, division of time so that the learning process runs effectively.</li> </ul>                                                                                                   | <ul style="list-style-type: none"> <li>- In the learning process, we are usually given responsibility for each specific area, and then we are asked to share our experiences in group dynamics.</li> <li>- All teaching factory practices are carried out at different times and in various task divisions.</li> </ul> |
| Actuating                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                        |
| Teacher                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Student                                                                                                                                                                                                                                                                                                                |
| <ul style="list-style-type: none"> <li>- In teaching factory learning, teachers always work together to direct students so that they can carry out various ways or strategies needed to</li> </ul>                                                                                                                                                                                                                                                                                                                                                    | <ul style="list-style-type: none"> <li>- In the process of implementing learning, we are usually introduced to various good impacts of entrepreneurial activities and</li> </ul>                                                                                                                                       |

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>support the realization of the entrepreneurial spirit.</p> <ul style="list-style-type: none"> <li>- In the teaching factory we invite students to learn more deeply related to entrepreneurial practices carried out by various companies. These strategies are expected to be a provision for them in entrepreneurship.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                | <p>marketing strategies so as to strengthen our intention in entrepreneurship.</p> <ul style="list-style-type: none"> <li>- I feel that the implementation of teaching factory at school gives me the experience to be able to work and do business.</li> <li>- With the teaching factory we have a better understanding of the demands of the world of work so that we can prepare ourselves well.</li> </ul>                                                                                                                                                                          |
| <b>Controlling</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Teacher</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Student</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <ul style="list-style-type: none"> <li>- Our controlling process is done by seeing the development of students for the better, in the sense that they are more competent and open to various inputs. This is evidenced by the development of business units. However, the time factor and capital factor are still obstacles to student development.</li> <li>- We focus on the attitude and responsibility that students show in teaching factory learning. This is important so that it becomes a provision in the world of work, especially since we also focus on developing students' personalities. There are some students who have the courage to start a business because of the experience through learning practices at school.</li> </ul> | <ul style="list-style-type: none"> <li>- In many instances, teachers emphasize that attitude and character are an important part of being productive at work. This makes us more optimal in teaching factory learning.</li> <li>- Attitude and personality development is carried out with various activities such as cooperation in developing a joint business unit.</li> <li>- So far, we have made and distributed various kinds of products for sale and received a positive response from the community. This process is of course under the guidance of the teachers.</li> </ul> |

*Source: Processed by researchers (2023)*

In this section, the researcher discusses the link between the interview results and the theory used in this study. The author uses the discussion section to explain interesting findings, convey possible implications and as a guide to provide recommendations for further research.

### **1. Planning**

Planning is an activity that focuses on setting various organizational goals along with the strategies applied to achieve each goal (Budi, 2018; Terry dan Ruwe, 2019) The importance of planning lies in the clarity of

each activity up to the process of evaluating the activity.

Based on the interview results, the teaching factory learning planning process is carried out well by the teachers. This situation can be seen from the various preparations they made before conducting teaching factory learning, both in preparation related to learning methods, learning focus to learning outcomes. Widyasari, dkk (2018), The learning planning process is very important so that the learning pattern runs well and makes it easier for teachers to measure the success of learning.

In addition, the planning process carried out by teachers in the teaching factory learning process makes the learning process that occurs at school better. This is evident from the positive impact felt by students, especially in developing themselves according to their talents and interests in entrepreneurship learning. This situation is certainly a good first step in forming an entrepreneurial spirit in students.

Not quite there, the learning planning process carried out by the teacher makes the direction of learning understandable to students. This can be seen from the increase in students' ability to understand entrepreneurial practices through joint exportation. This is in line with what was conveyed by Budi, (2018) which mentions that the planning process is needed to provide direction for every activity carried out so that it can run effectively and efficiently.

## 2. Organizing

The organization process is an important part of the learning process. This is because the effectiveness of learning is influenced by the accuracy of organizing each person in the appropriate field so that the learning process can run effectively. In short, the organizing process deals with who does what, when it is done and what the resulting targets are (Budi, 2018).

In the organizing process, teachers must be able to recognize the abilities or potential of each student. This process is needed so that the grouping or division of labor can target the right or competent people in their fields. Based on the results of the interview, the teacher mentioned that organizing is needed so that students can focus on the tasks and responsibilities given to them. In addition, organizing is also needed so that the learning process can run effectively during various time constraints. Therefore, in the organizing process, teachers must be more observant in seeing the potential that exists in each student, and more intensively foster entrepreneurial interests through various learning breakthroughs.

The drilling process carried out by teachers at SMK Muhammadiyah Gamping confirms the results of the research (Winarsih, 2021) which mentions that teachers need to understand and foster the character of students before training the entrepreneurial spirit in students. Some entrepreneurial characters that can be trained to students include motivation, achievement, future orientation, leadership, business networks and responsiveness to change.

### 3. Actuating

In the management process, implementation is the core and main part because it is in direct contact with various users in an organization. Therefore, implementation must be done well to achieve optimal goals.

Based on the interview results, it appears that the implementation process is carried out openly, where there is cooperation between teachers in directing teaching factory learning to real practices about entrepreneurship. This process is carried out to develop students' knowledge and skills about entrepreneurship. Good skills will increase job effectiveness and accelerate the process of adapting to changes that occur in the future (Fricticarani et al., 2023).

In addition, the presence of teachers who encourage students to be directly involved in entrepreneurial practices is also important to improve students' abilities. This practice shows the responsibility of teachers in the process of developing students' abilities, especially in developing students' entrepreneurial spirit.

The practices carried out by the teachers were responded positively by the learners. They considered that the presence of teachers in teaching factory learning made them better understand marketing strategies that they could practice in entrepreneurship. These strategies are needed by learners to better understand the demands of the world of work so that they can prepare themselves properly.

The results of this study are in line with research Cristianingrum dan Rosaliana (2017) which states that entrepreneurship learning influences entrepreneurial attitudes. In other words, the higher the implementation of job training through teaching factory learning, the higher the entrepreneurial attitude of students.

### 4. Controlling

Supervision is an important part of ensuring the implementation of positive practices in the learning process. Based on the interview results, it appears that the supervision process carried out on teachers in teaching factory learning is to see the development and understanding of students in developing themselves in the business unit they run. Student development is an important part of the supervision process to see the success of learning. Student development can be seen from the maturity of the potential that exists in him. By looking at student development, teachers can understand the various factors that support and hinder student development, both from internal and external aspects.

In addition, another focus in supervision is on the attitude and responsibility that students show in teaching factory learning. The supervision process in this section is also important to ensure the achievement of students' personality development. This is certainly one of the indicators of achievement that must be possessed by students during the learning process.



The supervision process carried out by teachers received a positive response from students. They said that the supervision carried out by the teacher made them more optimal in the practices carried out during teaching factory learning. Moreover, the supervision carried out by the teacher makes the distribution of production results can be done optimally and get a positive response from the community. From this process, the supervision process carried out by teachers is carried out to prevent mistakes or deviations in the practice of teaching factory learning so that it can truly foster the entrepreneurial spirit of students. This process reinforces the findings of (Apduludin., et al. 2023) which states that the active involvement of teachers in the educational process plays a major role in shaping positive character in students both in the academic and social fields.

In the end, the author illustrates that the teaching factory learning management process at SMK Muhammadiyah Gamping Yogyakarta has been running well. This is evident from the implementation of each management function as it should be. This situation is certainly the first step in shaping the entrepreneurial spirit in students.

As in the application of other learning models, teaching factory has various advantages in shaping the entrepreneurial spirit. (Mukhlisin, Kardoyo, & Yulianto, 2017; Fattah, dkk 2020) said that the teaching factory was able to increase the knowledge of students related to work in the business world, as well as being able to foster a professional attitude and instill an industrial culture. The same thing was also conveyed

by Hasanah (2018) In this study, the benefits of teaching factory implementation were confirmed by the students' statements that they felt that the learning process implemented at school was able to develop creative ideas, especially in recognizing entrepreneurial practices. In this study, the benefits of teaching factory implementation are confirmed by the students' statements that they feel that the learning process implemented at school can develop creative ideas, especially in recognizing entrepreneurial practices.

On the other hand, the demand to be able to compete in the world of work makes teaching factory learning increasingly needed. Therefore, the teaching factory learning process must be improved and specified to provide a more real picture for each student, especially in developing an entrepreneurial spirit. This can be done with a new breakthrough in teaching factory learning through more in-depth and specific practices in their fields. In addition, this practice must be accompanied by a thorough understanding of all aspects, including production, marketing planning, and product distribution planning. This is important so that students are truly prepared and have better confidence to become entrepreneurs.

## **KESIMPULAN**

Based on the data obtained and the results of the analysis that has been carried out, it can be concluded that the implementation of the teaching factory program at SMK Muhammadiyah Gamping Yogyakarta has been carried out well and

systematically. This can be seen from the learning planning process that has been oriented towards the formation of the entrepreneurial spirit in students. In the process, the teaching factory has also provided space for student development to explore further. The results of this study are in line with Irwanto's (2021) view that cooperation between the world of work and the industrial world is needed to develop student creativity because it is carried out in a real learning atmosphere about the conditions/equipment in the industry. This is important considering that students' creative ideas are unlimited, furthermore, the process of exploration can help students understand their production properly and precisely.

On the other hand, the presence of teachers in the teaching factory implementation process also helps students understand the entrepreneurship learning process better. This has a positive impact on students' confidence to take steps to become entrepreneurs. The positive impact of teaching factory activities is in line with research (Miladiah et al., 2021) which states that teaching factory learning is effective in increasing student motivation in participating in learning activities and has a positive impact on improving graduate competencies. Therefore, the practices that occur in teaching factory activities at SMK Muhammadiyah Gamping Yogyakarta can be a reference in developing students' entrepreneurial spirit. However, this research is still limited in seeing the positive impact of the teaching factory learning management process in developing students' entrepreneurial spirit. Therefore, further research is expected to be

able to see more comprehensive and in-depth related to the teaching factory learning management process.

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