The Quality of Implementation of Academic Supervision in Vocational Secondary Schools in Teaching Factory Based Learning

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**Abstract.** This research aimed to get an idea of how academic supervision activities are implemented in learning at SMK Negeri 2 Business and Management, Jayapura based on a teaching factory in the Marketing Department. The resource persons in this research were the school principal, teaching factory field coordinator teacher majoring in marketing, the deputy principal for the curriculum department, and female students majoring in marketing. The method used in this research is a descriptive qualitative approach, through observation, in-depth interviews, and documentation...
studies. The data obtained was analyzed using data reduction, data presentation, and conclusion. The results obtained from this research are that supervision activities have been carried out through class visits and work practice activities which have been carried out even though they have not been carried out on a scheduled basis and have only taken the form of monitoring. Apart from that, there is an assessment of student performance which the coordinator provides, there are efforts to develop learning programs by dividing block schedules and adjusting the curriculum according to industry needs, and there is feedback provided as input for improvements including transparency of profits from Esemkamart as well as monitoring of facilities and infrastructure, although there needs to be continuous improvement and more awareness regarding the implementation of occupational safety and health when carrying out the teaching factory learning process at SMK Negeri 2 Business and Management, Jayapura.

INTRODUCTION

The quality of education is determined by various related factors, one of which is the quality of educators or commonly known as teachers. Teachers, as professional personnel with the primary task of educating, teaching, guiding, directing, and evaluating learners (Law No. 14 of 2005), need to strive and make efforts on how to implement innovative and creative learning, including in preparing for the challenges of society 5.0 (Tasrif et al., 2022). Therefore, conscious efforts are needed to enhance the professionalism of teachers in carrying out the learning process, one of which is through supervision or oversight (Amini et al., 2021).

Supervision conducted on teachers (formative feedback) is focused on continuous support, improvement, and professionalism of teachers, encompassing various formal and informal efforts (Mette et al., 2017). Supervision, as one of the competencies that must be mastered by a supervisor in the form of educational administration, in this case, is supervisors and principals towards teachers and other staff (Dwikurnaningsih, 2020). Among the various types of educational supervision available, one of them is academic supervision that must be carried out by the school principal to enhance the professionalism of teachers in conducting teaching and learning activities. In research conducted by Sudarsih (2022), academic supervision activities conducted at UPTD SD Negeri 26 Belinyu showed an increase in scores in aspects of teaching and learning implementation and learning administration outcomes. Furthermore, in research conducted by Unaisyah (2018), there was a positive correlation between academic supervision and teacher performance.

Supervision needs to be conducted at every level of education, including vocational high schools (SMK), which have a different work climate and environment compared to
upper secondary education, with the aim of through supervision activities, there is adjustment of curriculum and teaching relevant to the latest developments in the world of work (Ganefri et al., 2017). Generally, the purpose of organizing SMK is to prepare graduates who are ready to work according to relevant fields and skills (Ganefri et al., 2017). Therefore, qualified teachers are needed who continuously develop their abilities in their field, which are periodically nurtured together by the school principal and school supervisors.

In Indonesia, the concept of the teaching factory began to be implemented in vocational high schools (Called SMK in Indonesian) in 2000 in a very simple form, namely by establishing production units that already exist in SMKs (Wahjusaputri & Bunyamin, 2022). In 2005, this concept evolved into a model of industrial-based SMK development, with three main categories of industrial-based SMK development: 1) Simple industrial-based SMK development; 2) More complex industrial-based SMK development; and 3) Industrial-based SMK development in the form of a teaching factory. SMK Negeri 2 Business and Management Jayapura is one of the vocational schools with a mission to make the school a center for the development of teaching factories in the business/industrial world (DU/DI) to enhance the potential of the region. Teaching factory-based learning is essentially oriented towards products/services produced by each expertise program tailored to the competencies and skills required in the business/industrial world as well as the community (Krisdayati & Hariyati, 2020). Based on Government Regulation No. 41 of 2015, a factory within the school (teaching factory) is a facility established by the school for operational production activities to create results tailored to real DU/DI, with a non-profit assumption prioritizing students' work practice experiences.

SMK Negeri 2 Bisnis dan Manajemen is one of the vocational high schools that has implemented supervisory activities. Furthermore, this school also applies the teaching factory concept in the learning process, especially in marketing classes. Like many supervisory programs conducted, this research aims to analyze how supervision is implemented in SMK Negeri 2 Bisnis dan Manajemen, specifically in the Marketing Department, which already has a teaching factory called Esemksamart in the learning process that refers to the mission of developing teaching factories in the business and industrial world. Therefore, the rationale of this research focuses on input in the implementation of academic supervision, the process of implementation from the aspect of teaching factory-based learning, and the outcome of the implementation of academic supervision in SMK Negeri 2 Bisnis dan Manajemen, Jayapura.
METHOD

The method used in this research is descriptive qualitative. This study aims to explore and analyze the quality of the implementation of academic supervision in the teaching factory-based learning process. Data collection utilizes three techniques: observation, which has been conducted since May 2023 by researchers who directly went to the field to identify research problems that subsequently become the focus of the study, followed by semi-structured interviews. These interviews aim to find problems in a more open manner, with respondents asked for their opinions and ideas. Interviews were conducted face-to-face with the school principal, vice principal of the curriculum department, marketing department coordinator at Esemkamart, and several students, as well as through WhatsApp and social media platforms from May 2023 to August 2023. The last data collection technique involved document studies containing information about the school's profile, vision, mission, academic supervision activities conducted in the Marketing Department, an overview of the teaching factory, and other activities related to the research theme. The gathered data were analyzed thoroughly using the Miles and Huberman technique (2007) involving data reduction, data display, and conclusion drawing to understand how academic supervision is implemented in teaching factory-based learning at SMK Negeri 2 Bisnis dan Manajemen, Jayapura.

RESULTS AND DISCUSSIONS

One of the missions of SMK Negeri 2 Bisnis dan Manajemen, Jayapura, is to establish SMK Negeri 2 Bisnis dan Manajemen as a center for developing a teaching factory in collaboration with the world of work and business to enhance the potential of the region. To achieve this mission, efforts are needed to monitor the implementation of teaching factory activities, especially in the Marketing Department which has Esemkamart, by supervisors, in this case, the school principal, to the field coordinator. This is to ensure that students gain direct work experience before entering the world of work and industry, aligning with the school's mission. As for the implementation of academic supervision, it is deeply examined using several techniques carried out by the school principal, as follows:
Results

1. Classroom Visits and Internship Activities

In conducting classroom visits, the principal of SMK Negeri 2 Bisnis dan Manajemen Jayapura has fully done so," stated EW, the principal:

“Visiting Esemkamart is necessary and highly beneficial. I can directly observe and witness how my students engage in practical learning that is highly relevant to the world of work. I also notice their enthusiasm when I visit them in class, observing the learning process in action.”

The statement is also supported by AG, who serves as the coordinator of Esemkamart and as the manager of Technopark SMKN 2 Jayapura," quoted AG:

“Yes, the school principal regularly monitors activities here at Esemkamart and inquires about any difficulties encountered. However, these visits are not scheduled in advance by him; they are more like spontaneous visits, so sometimes he observes the learning process as it unfolds," explained AG.”

To strengthen the statement, the researcher also conducted interviews with eleventh-grade students regarding the process of the principal's visits to the practical location and their experiences when visited. The quoted excerpt from the interviews is as follows:

“I'm happy to be seen by the principal. He also asks us how we feel when learning in and out of class. Besides, he also buys goods sold at Esemkamart. As far as I know, I've only encountered him maybe twice, possibly because we're on different shifts.”

Based on the interview results, it appears that the principal has conducted classroom visits, even though there isn't a definite and planned schedule for such visits to the classrooms and internship activities. This indicates the principal's commitment to supporting and overseeing the learning process in the school, even if it is not always done on a scheduled and planned basis.

2. Student Performance Assessment

The assessment of student performance is monitored through the application of competency standards during direct practice at Esemkamart to help gauge the extent to which students understand and master marketing materials and the skills taught. Based on the interview conducted with AG, the following is quoted:

“I use several assessment methods, including direct observation, projects or internship tasks, and student reflections. Additionally, I hold regular meetings with students to provide feedback and evaluate their progress. Typically, I assess their technical skills in creating sales reports, market segmentation, or product promotion, as well as their communication with customers, work attitude, and ethics.”

“Usually, this assessment is indeed carried out by the supervising teacher, and the school principal is not directly involved. However, if we encounter any challenges, we can
request the school principal to help monitor the issues. So far, everything has been fine. However, some students may not fully enjoy the marketing activities.”

Based on the interview results, it appears that the assessment process primarily focuses on the teacher or teaching factory coordinator. The school principal receives reports from the assessment results, and if any difficulties are found, the principal can directly supervise the teacher to address the issues.

The school principal plays a crucial role as a supervisor and leader in this process. They must have a deep understanding of the teaching conditions in their educational institution and be ready to assist or guide teachers to improve teaching quality. The principal can conduct supervision to enhance teacher professionalism and overall education quality in the school. Effective supervision and good cooperation between the school principal and teachers are essential.

3. Curriculum Development

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4. Feedback

Feedback is one of the ways used to assess the success of a learning process conducted through supervision activities by the school principal, which is a positive activity. This helps improve teaching quality, evaluate programs, and develop teachers. Feedback can also enhance teacher motivation, aid in strategy development, strengthen partnerships with industry, and address any issues that may arise in the program. Open communication between the school principal and the field coordinator is key to maintaining the success of the teaching factory program. Although the school principal does not have a scheduled program for supervising activities at the teaching factory in the field, in general, he/she ensures that communication is maintained to ensure that learning activities at Esemkamart run smoothly. Below are the results of the interview conducted:

“The supervision process of the Esemkamart Teaching Factory coordinator has become an essential part of our efforts to ensure that activities run smoothly. I also emphasize the importance of providing support to instructors in developing learning programs relevant to the world of work. The implementing coordinator also ensures that equipment and facilities are always in good condition and ready for use.”

This question was also asked to the implementing coordinator of Esemkamart to obtain valid answers. Here are the results of the interview with AG.

"The supervision process carried out by the School Principal typically involves direct visits and written evaluations. Although not regular, the School Principal conducts direct visits to the Esemkamart Teaching Factory to observe the learning process, interaction between teachers and students, as well as the condition of the practical work environment.”

“The written evaluation is based on documents prepared by the Teaching Factory team. These documents include lesson plans, student progress reports, student performance assessments, and other relevant notes.”

This statement was also directly conveyed by AG, acknowledging the importance of a leader such as the school principal to review directly and provide positive input for the implementation of the teaching factory in line with the school's mission. The coordinator feels the positive impact of the supervision activities conducted, even if only in the form of visits or written evaluations, as stated below:

“We have also placed more emphasis on providing regular feedback to students to help them understand their areas of improvement and provide opportunities for better growth. This has enabled students to develop better self-reflection skills.”

“Furthermore, supervision also encourages closer collaboration among teachers. This helps in aligning learning at the school with the needs of the industry and ensures that students gain the most beneficial practical work experience.”

The practice of feedback provides the necessary opportunity to identify discrepancies between expectations and realities, facilitate process improvements, and
encourage adjustments and innovations in strategies or approaches. By incorporating principles such as regular monitoring and data analysis, feedback activities serve as effective mechanisms in assessing the success of policy implementation, programs, or teaching methods.

Additionally, the researcher also touched on how feedback provided by the school principal regarding the revenue generated from the Esemkamart business. Here is a quote from the interview:

"We fully understand the importance of transparency regarding Esemkamart's revenue. We are committed to conducting all financial activities openly and honestly. We ensure that funds obtained from Esemkamart are used wisely for educational purposes. We always encourage open discussion and accountability in managing these funds, so that we can continue to improve the quality of the Teaching Factory program and its benefits for students."

The researcher also asked a similar question to the coordinator, AG. Here is a quote from the interview:

"We have implemented a detailed revenue allocation plan that has been agreed upon. Forty percent of the revenue is allocated for school management, while the remaining sixty percent is utilized for product turnover in Esemkamart. This is an approach we believe can optimize the use of Esemkamart's revenue to support education in the school."

Coordinator AG also discussed the journey of Esemkamart over the past few years,

"Esemkamart experienced challenging times during the last three years prior to the management change, during which I served as the coordinator. However, with our hard work and the changes we implemented, Esemkamart became active again and has continued to grow until now. This is evidence that transparent and effective management can support business growth and make a positive contribution to the school."

In conclusion, transparency in the distribution of Esemkamart's revenue is one of the keys to success in rebuilding Esemkamart's business. With clear percentages allocated for school management and product turnover in Esemkamart, along with a commitment to effective management, Esemkamart has successfully recovered and made a positive contribution to the success of the educational program at the school. The success of SMK Negeri 2 Bisnis dan Manajemen Jayapura also underscores the importance of leadership roles focused on transparency and change that support business growth.

5. **Monitoring of facilities and infrastructure**

Adequate facilities and infrastructure in teaching factory learning in the marketing department are crucial. This helps create a learning environment that supports students' practical experiences in situations like the workplace. The learning space, commonly referred to as a workshop-laboratory, becomes the venue for practical learning activities,
thus requiring standards in line with the standard facilities and infrastructure for vocational schools according to Minister of Education and Culture Regulation Number 40 of 2008. Complete facilities enable students to develop practical skills in market research, data analysis, and business strategy design.

Based on the results of interviews conducted with coordinator AG, presented in the interview excerpt as follows:

“Usually, the principal conducts visits while also observing the existing facilities and infrastructure here, whether they are still in good condition or need improvements. There are several facilities that need to be added, such as acquiring sales shelves or air conditioning units so that visitors feel more comfortable and students working here do not feel too hot.”

In general, the principal basically conducts direct checks, although there are still areas that need to be developed to better support the optimal learning process for students. This direct inspection identifies several areas that need improvement, including the need for additional shelves or rearrangement of storage facilities to support efficiency and safety. When confirmed with the principal, here is the interview excerpt:

“…committed to continually conducting evaluations and making improvements in this regard, including efforts to meet the need for additional shelves or other storage facilities…”

It is evident that the workshop-lab owned by the Marketing department is only Esemkamart. Therefore, proportional standards regarding equipment for the implementation of the teaching factory are needed according to the number of students, even though there are block scheduling or shifts. The available tools must also be in good condition and standardized for immediate use (maintenance and repair/ MR).

Not only the availability of ready-to-use equipment, but the principal must also pay attention to the implementation of Occupational Health and Safety (OHS) management. Based on the interview conducted by AG, it was found that:

“…indeed, occupational health and safety management is one of the important aspects in our Teaching Factory, and there are still some areas that need improvement.”

“One of the main challenges is awareness of safety. There are not many safety signs displayed in the workshop-lab, and we also observe that awareness of the importance of following safety procedures has not reached the expected level. Some students still pay little attention to the correct safety measures when working with equipment or hazardous materials, such as not wearing gloves when handling chemical substances.”

“Our future plans include continuing to enhance safety training for both students and teachers. We will also develop more comprehensive safety guidelines and conduct regular inspections to ensure that our equipment and facilities are safely utilized. Additionally, we will establish partnerships with occupational safety experts or relevant agencies that can provide guidance and recommendations.”
Based on the presentation, it can be concluded that the facilities and infrastructure are generally available, but there are some equipment that needs to be developed and improved by the school. Additionally, there is a need for occupational health and safety management to be implemented in the teaching factory learning process to create a maximum and effective practical learning experience.

**Discussion**

The development of the Teaching factory learning program is a crucial step in strengthening the quality of education at SMK Negeri 2 Bisnis dan Manajemen Jayapura, especially in the Marketing Department. Through this program, students gain invaluable practical experience in an environment that resembles the industrial world. The main goal is to produce graduates who not only understand theory but also have practical skills relevant to the demands of the workforce (Wahjusaputri & Bunyamin, 2022). This will enhance students' readiness as they enter the real world after graduating from school. Additionally, the role of teachers is vital in this program. They serve not only as instructors but also as mentors for students, providing guidance and helping to overcome any challenges that may arise during practical learning.

Furthermore, SMK Negeri 2 Bisnis dan Manajemen Jayapura has successfully forged partnerships with the industry. By providing training to students, and even offering internship opportunities, the school has ensured that what is taught in the classroom aligns with the needs desired by the workforce. Thus, the Teaching factory program not only creates students who are practically skilled but also connects education with real job opportunities, making a significant contribution to preparing the younger generation for success in their future careers.

The academic supervision research on the Teaching factory learning in the Marketing Department of SMK Negeri 2 Bisnis dan Manajemen Jayapura has achieved significant outcomes in enhancing education quality and developing this program. One of the techniques used is classroom observation and practical work activities. Through these observations, it's possible to carefully monitor how learning unfolds in the field and identify areas for improvement. The results of these observations have helped enhance teaching quality and provide students with better practical experiences.

Assessing student performance is also an essential part of this academic supervision research. By objectively measuring student achievements, supervisors can evaluate the effectiveness of the Teaching factory learning program. Data from these assessments have been used to develop individual development programs for students who
need extra attention. This helps ensure that every student has an equal opportunity to succeed in the industrial environment.

The development of the learning program is one of the main focuses of this academic supervision research. Based on the findings and recommendations from the supervisors, the Teaching factory learning program continues to be refined. Curriculum changes and teaching methods are implemented to ensure that students receive relevant training in line with industry demands. As a result, the program becomes more dynamic and responsive to the latest developments in the business and marketing world.

Monitoring of facilities and infrastructure is also an essential part of this research. Supervisors have measured various parameters, including the availability of workshop labs and other facilities. By identifying deficiencies and needs, the school can make necessary improvements to provide a better learning environment. This includes upgrading infrastructure and maintaining equipment used in student practical work.

Additionally, this academic supervision research has measured aspects such as learning patterns and human resources (HR). Effective learning patterns are the focus to maximize the student learning process. Human resources development, including training for teachers and school staff, has been conducted to ensure that the teaching team has the skills and knowledge necessary to support the Teaching factory program.

Lastly, transparency in the learning process is also highlighted in this academic supervision research. Supervisors have ensured that information related to the Teaching factory program is easily accessible to all stakeholders, including students, parents, and school staff. This aims to create a better understanding of the objectives and benefits of this program.

Overall, the academic supervision research on Teaching factory learning in the Marketing Department at SMK Negeri 2 Business and Management Jayapura has provided a profound understanding of various aspects of this program. Its results have helped improve the quality of education, ensure the program's relevance to the industry, and provide better opportunities for students to succeed in their future careers.

CONCLUSION

Based on the data obtained and analyzed, it can be concluded that the academic supervision activities in Teaching factory-based learning in the Marketing Department have generally been carried out well. Supervision activities are conducted through class visits and practical work activities, although not yet scheduled and only in the form of
monitoring. Student performance assessments are primarily conducted by the coordinator, there are efforts to develop the learning program through block scheduling and curriculum adjustments according to industry needs, feedback is provided for improvement including transparency in the profits from Esemkamart, and there is monitoring of facilities and infrastructure, although continuous improvement is needed. There is also a need for greater awareness regarding the implementation of Occupational Health and Safety during the Teaching factory learning process at SMK Negeri 2 Bisnis dan Manajemen, Jayapura.

REFERENCES


