

TRAINING MANAGEMENT FOR MOTORCYCLE ENGINEERING TEACHERS TO IMPROVE THE QUALITY OF VOCATIONAL HIGH SCHOOL (SMK) GRADUATES AT SMKN 1 SUBANG AND SMKN 1 KARAWANG

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Abstract

The aim of this study is to explore the teacher training management in Vocational High Schools, SMKN 1 Subang and SMKN 1 Karawang, in the context of developing Professional Certification Institutions (LSP) in the field of Motorcycle Engineering. This research uses a descriptive method with a qualitative approach. Data were collected through observation, interviews, and documentary studies. Data analysis was conducted based on Deming's management theory, emphasizing the importance of focusing on quality, continuous improvement, and fact-based management. The results of the study show differences between the two schools. SMKN 1 Subang collaborates with the automotive company HONDA, thus the training financing is covered by the company. Meanwhile, SMKN 1 Karawang uses two methods for training financing: collaborating with HONDA and partially through self-funding. This condition poses a challenge for the teachers at SMKN 1 Karawang. In conclusion, it is important for educational institutions to implement Deming's management principles, foster collaboration between schools and industries, and government support is crucial in improving the quality and sustainability of vocational education in Vocational High Schools (SMK).

Keywords: Teacher Training Management, Professional Certification Institutions (Lsp), Motorcycle Engineering, Deming's Management Theory.

INTRODUCTION

Vocational education in Vocational High Schools (SMK) in Indonesia, managed by the Directorate General of Vocational Education, has experienced significant growth with a primary focus on the development of Professional Certification Institutions (LSP). This initiative is driven by several key factors such as competency standards, industry needs, professional certification, improvement of educational quality, and existing regulatory provisions.

Although the development of LSP involves collaboration with industry stakeholders, professional organizations, and certification bodies, there are challenges in implementing teacher training management, particularly in the field of Motorcycle Engineering. Some teachers face financial difficulties in obtaining LSP certification, with part of the costs being borne by the school. As a result, some teachers opt to obtain certification directly from partner companies, such as PT. Daya Adicipta Motor Bandung, which offers training and certification at no cost. SMKN 1 Subang and SMKN 1 Karawang, as Centers of Excellence Schools, have been actively involved in the development of LSP. However, there are several challenges faced

by both schools in implementing the specialized programs, namely, the LSP certificate has a validity period of three years, and the certification costs must be covered independently by the teachers. This situation creates demotivation among teachers, especially those in the field of Motorcycle Engineering.

Considering the crucial role of vocational teachers in shaping students' quality and competitiveness, particularly in the field of Motorcycle Engineering, certification training for teachers is essential to enhance the quality of the graduates.

RESEARCH METHODOLOGY

This study employs a Descriptive method with a qualitative approach to explore the Training Management for Motorcycle Engineering Teachers to Improve the Quality of Vocational High School (SMK) Graduates at SMKN 1 Subang and SMKN 1 Karawang.

Data Collection:

In-depth interviews with teachers and educational administrative staff at both schools to understand the processes, challenges, and experiences related to teacher training management and LSP certification.

Direct observations of teacher training activities and the certification process conducted by the schools or partner companies.

Documentary study conducted by analyzing policies, regulations, and examining data related to the development of LSP, including certified specialty programs and regulations regarding LSP certification.

Data Analysis:

The results of interviews and observation notes are thematically analyzed to identify patterns, themes, and main issues related to teacher training management.

Data from the documentary study are analyzed to understand the regulatory context and policies influencing the implementation of LSP in vocational schools.

Data Validation:

Triangulation of data sources from interviews, observations, and documentary studies. This is done to ensure the validity and reliability of the research findings. Additionally, discussions are held with key informants and vocational education experts to test and validate the research findings.

Through this method and approach, this research aims to gain an in-depth understanding of teacher training management at SMKN 1 Subang and SMKN 1 Karawang, as well as the challenges faced in the implementation and development of LSP in the Motorcycle Engineering field.

RESULTS AND DISCUSSION

SMKN 1 Subang

Geographically located at Jl. Arief Rahman Hakim No.35, Cigadung, Subang District, Subang Regency, West Java 41213, Indonesia. Contact number: (0260) 411410. State Vocational High School (SMK) 1 Subang was established in 1965 under the name of Dwikora Upper Secondary Economic School (SMEA) located at Kirana Jalan Oto Iskandardinata Subang, in front of Sinta Theater, which is now SMU PGRI 1 Subang (City High School). The school's status at that time was private. In 1966, SMEA Dwikora relocated and merged with SMP PGRI 1 Subang at Jalan A. Natasukarya, Pasirkareumbi Subang. In 1967, it relocated again and merged with Lower Secondary Economic School (SMEP) on Jalan Oto Iskandardinata Subang.

In 1969, SMEA Dwikora changed its name to SMEA State XII Subang, with a public school status, and relocated to Jalan Embang Gintung No. 36 Cikalapa, Pasir Kareumbi Subang. The building is owned by SMEA State XII Subang.

In 1994, the name was changed from SMEA State Subang to SMK State 1 Subang in accordance with the 1994 curriculum.

School's Vision, Mission, and Objectives

a) Vision: To become a leading educational institution in preparing graduates who are religious, entrepreneurial, adaptable to changing times, professional in their field, and caring for the environment both nationally and regionally by 2024.

b) Mission:

- 1) To prepare graduates with religious character.
- 2) To prepare graduates with an entrepreneurial spirit.
- 3) To prepare graduates capable of adapting to changing times.
- 4) To prepare graduates who are professionals in their field.
- 5) To prepare graduates who care for the environment both nationally and globally.

c) Objectives:

- 1) In an effort to realize the mission of preparing graduates with religious character, the school develops an integrated program in the CEREN model, where Character Building (C) is the school's program to shape religious student characters through the Islamic School Culture program, build students' physical and resilience characters through national defense programs, and foster cooperative character through joint programs.
- 2) In an effort to realize the mission of preparing graduates with an entrepreneurial spirit (able to identify opportunities, persistent, courageous, resilient, and hardworking), the school creates a program integrated in the CEREN model, namely Entrepreneurship (E), through production unit programs in each competency, optimizing outreach with the SMK Goes to Village concept, and creating various opportunities with the Startup Business concept.

- 3) In an effort to prepare graduates capable of adapting to changing times, the school develops an integrated program in the CEREN model, namely Responsive (R), through the Smart School program with the "One for All" concept, digitizing all school programs, and accustomed to designing renewable technologies needed by the wider community.
- 4) In an effort to realize graduates who are professionals in their field, the school develops a program integrated in the CEREN model, namely Excellence of Competency, through industry class programs for each competency, implementing teaching Factory systems, synchronizing industry curricula, and achieving SMKN 1 Subang as an industry cluster by 2024.
- 5) In an effort to realize graduates who care for the environment both nationally and globally, the school develops a program integrated in the CEREN model, namely Nature (N), through Green School activities.

SMKN 1 Karawang

Geographically located at Jl. Pangkal Perjuangan, RT.05/RW.04, Tanjungpura, West Karawang District, Karawang Regency, West Java 41316. Phone: +628111180308. State Vocational High School 1 Karawang, formerly State Medium Technology School (STM) Karawang, fully named State Vocational High School 1 Karawang (commonly referred to as SMKN 1 Karawang) is a state vocational high school located in West Karawang, Karawang, West Java, Indonesia. The school was built in 1965.

Currently, SMK State 1 Karawang uses the SMK 2013 REV. Metal Fabrication and Manufacturing Engineering curriculum. SMKN 1 Karawang is led by a school principal named Makmur, S.Pd, MT, assisted by an operator named Imaduddin Bilad.

School's Vision, Mission, and Objectives

- a) Vision: Realizing graduates who are excellent, have character, high competitiveness, and environmentally conscious based on faith and piety.
- b) Mission: To implement the ISO 9001:2015 Quality Management System, carry out 5R and Kaizen activities, build communication with parents of students, implement supervision, teacher performance assessment, and continuous professional development.

Based on observations and interviews with the school principals, program heads, and Motorcycle Engineering Practice Teachers at SMKN 1 Subang and SMKN 1 Karawang, the author found the following:

Planning of Motorcycle Engineering Teacher Training

At SMKN 1 Subang and SMKN 1 Karawang, a training needs survey was conducted to identify the weaknesses and needs of Motorcycle Engineering teachers. Based on the survey results, the training curriculum was developed to include the latest motorcycle technology and effective teaching methods.

Implementation of Motorcycle Engineering Teacher Training

Training is conducted through a series of workshops in motorcycle workshops with support from experts and industry practitioners. The materials taught include motorcycle damage diagnosis, injection technology, and the use of modern diagnostic tools.

Evaluation of Motorcycle Engineering Teacher Training Implementation.

After the training, an evaluation was conducted by collecting feedback from teachers who participated in the training. The evaluation questionnaire covers understanding of the material, practical skills, and the effectiveness of the teaching methods applied.

Follow-up Actions on Motorcycle Engineering Teacher Training Implementation

Based on the evaluation results, a follow-up session was conducted to discuss input and suggestions from the teachers. Follow-up actions include developing plans for advanced training, workshops, or sharing best practices among teachers.

Supporting Factors for Motorcycle Engineering Teacher Training Implementation in Vocational Schools

Full support from school management, availability of resources such as workshops and equipment, and collaboration with local motorcycle industries providing access to the latest technology and information.

Obstacles to Motorcycle Engineering Teacher Training Implementation in Vocational Schools

Budget limitations, lack of motivation or willingness from teachers to attend training, and limited access to the latest technology and information from the motorcycle industry.

Discussion

This research can reveal a deep understanding of teacher training management at SMKN 1 Subang and SMKN 1 Karawang, as well as the challenges faced in the implementation and development of Professional Certification Institutions (LSP) in the field of Motorcycle Engineering.

Understanding of Teacher Training Management

In the context of Deming's management theory, a focus on quality and continuous improvement (CI) is the key in managing vocational education. In-depth interviews show variations in approaches and development priorities of LSP in each school, which align with the CI principle to continuously improve process and output quality.

Challenges in LSP Implementation and Development

One of the main principles in Deming's theory is understanding the system. The challenges of certification costs and the validity period of LSP certificates reflect barriers in the system that hinder quality and continuity in vocational education. The variation in certified specialty programs between the two schools indicates a mismatch between industry needs and the curriculum provided by the schools.

Regulatory Context and Policies in LSP Implementation

In Deming's theory, one of the principles is management by fact. Analysis of policy and regulation documents shows the need to manage vocational education based on accurate data and information. The variation in certified specialty programs between the two schools underscores the importance of consistency in implementing fact-based policies and regulations.

Validation and Research Findings

Through data source triangulation and group discussions with key informants and vocational education experts, the research findings are expected to validate and strengthen the understanding of teacher training management and challenges in the implementation and development of LSP in SMKN 1 Subang and SMKN 1 Karawang.

Discussion

In the context of Deming's management theory, quality is absolute and must be continuously improved. Challenges in teacher training management and LSP implementation in vocational schools, such as certification costs and variations in specialty programs, indicate barriers to achieving the expected quality of vocational education. Therefore, a system-based approach, focus on quality, and management by fact are key to overcoming these challenges.

Planning of Motorcycle Engineering Teacher Training

At SMKN 1 Subang and SMKN 1 Karawang, a training needs survey was conducted to identify the weaknesses and needs of Motorcycle Engineering teachers. Based on the survey results, the training curriculum was developed to include the latest motorcycle technology and effective teaching methods.

Discussion:

Well-planned planning will ensure that the training conducted is relevant to industry needs and technological developments, thus improving the quality of vocational school graduates.

Implementation of Motorcycle Engineering Teacher Training

Training is conducted through a series of workshops in motorcycle workshops with support from experts and industry practitioners. The materials taught include motorcycle damage diagnosis, injection technology, and the use of modern diagnostic tools.

Discussion:

Effective training implementation will enhance teacher competence in teaching students, making vocational school graduates more prepared to enter the workforce.

Evaluation of Motorcycle Engineering Teacher Training Implementation

After the training, an evaluation was conducted by collecting feedback from teachers who participated in the training. The evaluation questionnaire covers understanding of the material, practical skills, and the effectiveness of the teaching methods applied.

Discussion:

Training evaluation is important to assess the success of the training and determine areas that require improvement or refinement in the future.

Follow-up Actions on Motorcycle Engineering Teacher Training Implementation

Based on the evaluation results, a follow-up session was conducted to discuss input and suggestions from the teachers. Follow-up actions include developing plans for advanced training, workshops, or sharing best practices among teachers.

Discussion:

Appropriate follow-up will ensure that training has a long-term impact on improving the quality of vocational school graduates. Supporting Factors for Motorcycle Engineering Teacher Training Implementation in Vocational Schools

Full support from school management, availability of resources such as workshops and equipment, and collaboration with local motorcycle industries providing access to the latest technology and information.

Discussion:

Adequate support and resources will facilitate the implementation of training and increase its effectiveness.

Obstacles to Motorcycle Engineering Teacher Training Implementation in Vocational Schools

Budget limitations, lack of motivation or willingness from teachers to attend training, and limited access to the latest technology and information from the motorcycle industry.

Discussion:

These obstacles need to be overcome through effective management strategies and collaborative approaches between schools, teachers, and the industry.

CONCLUSION

The management of motorcycle engineering teacher training in vocational high schools (SMK) is a key factor in improving the quality of graduates, ensuring they are ready to meet industry demands and enter the workforce with relevant competencies. A systematic implementation through planning, execution, checking, and sustainable follow-up is the foundation of this process. Case studies conducted at SMKN 1 Subang and SMKN 1 Karawang emphasize the importance of close cooperation between schools, teachers, and industries as the main pillars in effective training implementation.

Role of Training Management: Well-planned and focused planning on the actual needs of the motorcycle industry is a good start to improve the quality of SMK graduates. Careful and effective implementation will ensure that teachers have the necessary competencies to teach students with relevant and up-to-date methods.

Collaboration Among Stakeholders: SMKN 1 Subang and SMKN 1 Karawang demonstrate that collaboration between schools, teachers, and industries is the key to success in training implementation. Industry support provides access to the best technology and practices, while schools and teachers act as change agents that implement and integrate training into the curriculum.

Importance of Evaluation and Follow-Up: The checking and follow-up process after training is an important step to ensure that training has a significant impact. Comprehensive evaluation will help identify areas that need improvement and refinement, while appropriate follow-up will ensure sustainable and adaptive training to changing industry needs.

Considering both case studies, it can be concluded that the management of motorcycle engineering teacher training in SMK should be carried out holistically and integrated, considering industry needs, involving various stakeholders, and implementing comprehensive evaluation and sustainable follow-up.

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