

Development of a Concept for the Teaching Factory at the Poly Kendal in Indonesia

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The Teaching Factory model integrates industry practices into vocational training. This study identifies key challenges at the Polytechnic for Furniture and Wood Processing in Kendal and proposes improvements in collaboration, infrastructure, and curriculum to enhance training effectiveness and student employability.

Introduction

Vocational education in Indonesia struggles to meet industry needs, especially in wood processing. The Teaching Factory model aims to bridge this gap by combining academic learning with real-world production. However, its implementation at the Polytechnic for Furniture and Wood Processing in Kendal faces challenges that limit its effectiveness in workforce preparation.

Key Challenges

The Teaching Factory at the Polytechnic for Furniture and Wood Processing in Kendal faces several obstacles. Limited industry collaboration reduces students' exposure to real-world practices, while outdated equipment and inefficient workflows hinder hands-on training. A lack of structured safety protocols poses risks, and ineffective management impacts productivity. Additionally, the curriculum does not fully align with industry needs, leaving graduates underprepared for the workforce.

Proposed Concept & Implementation

To address these challenges, this study presents a development plan for improving the Teaching Factory model.

Short-term improvements:

- Strengthening safety measures and ensuring compliance with industry standards.
- Optimizing workshop layout for better efficiency in training and production.
- Updating basic equipment to align with industry requirements.

Mid-term actions:

- Developing formal industry partnerships to enhance practical training and employment pathways.
- Implementing faculty training to incorporate modern teaching methods and industry-relevant skills.
- Adapting the curriculum to integrate digital tools,

sustainability concepts, and evolving industry needs.

Long-term strategy:

- Establishing a continuous feedback system with industry partners to keep training programs updated.
- Creating a self-sustaining Teaching Factory model, where students contribute to production processes while learning.
- Expanding the use of advanced manufacturing technologies.

Conclusion

Improving infrastructure, industry collaboration, and safety standards at the Polytechnic Kendal could establish it as a model for vocational education in Indonesia's wood processing sector. A structured Teaching Factory framework would enhance hands-on training, align curricula with industry requirements, and strengthen student employability. Standardized best practices, including sustainability and digitalization, could make the model scalable for other institutions, contributing to the modernization of vocational education and better workforce readiness.



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Final group photo with the staff of the Polytechnic for Furniture and Wood Processing in Kendal, Indonesia.