



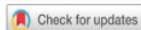
Work Readiness of Competencies Machining Engineering's Student

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DOI: <https://doi.org/10.46245/ijorer.v5i1.441>

Sections Info

Article history:

Submitted: November 15, 2023

Final Revised: January 02, 2024

Accepted: January 03, 2024

Published: January 07, 2024

Keywords:

Work Readiness;

Machining Engineering;

Vocational High School.



ABSTRACT

Objective: Vocational High School or Sekolah Menengah Kejuruan (VHS) is one of the levels of education in Indonesia. VHS provides various skills programs. VHS graduates should have more significant opportunities to work based on their competencies, but the most dominant unemployed were VHS graduates in East Java, Indonesia. VHS's students must have work readiness and vocational competencies to reduce unemployment. The mechanical Engineering program encourages students to operate machines and produce goods. Machine CNC is one of the manufacturing industries. The research aims to analyze the influence of problem-solving, technology, teamwork, and self-management skills on the work readiness of VHS students in the Mechanical Engineering program. **Method:** This research used quantitative methods with a causality approach. The population was students of the Mechanical Engineering program in East Java Province in Indonesia. The random sampling technique was used with 377 respondents. Analysis data used SEM. **Results:** Problem-solving skills were 36.7% influenced by technology, teamwork, and self-management. Work readiness was 54.6% influenced by problem-solving skills. **Novelty:** The significant positive influence of problem-solving skills, technology skills, teamwork skills, and self-management skills on the work readiness of students at Machining Engineering Vocational High School in East Java simultaneously.

INTRODUCTION

The world population is around 8.05 billion people. According to International Monetary Fund (IMF) data in 2023, Indonesia is 58th in the world with an unemployment rate of 5.300%. Vocational High School (VHS) graduates should have more significant opportunities to work based on their competencies, but the highest number of unemployed were VHS graduates in East Java, Indonesia. VHS is one of the levels of education in Indonesia that provides various skills programs. This is a challenge for us as vocational educators. Students must work readiness and vocational competencies to reduce unemployment (Pambayun et al., 2023; Sudarsono et al., 2022; Tajuddien & Faroh, 2021).

The Mechanical Engineering Program encourages students to operate machines and learn how to produce goods using various machines. Setting up CNC machines, programming CNC, and operating CNC machines are some of the competency standards and qualification levels of Machining Engineering expertise. However, CNC machine learning in vocational schools tends to be cognitive knowledge that must fully accommodate analysis skills and comprehensive product manufacturing skills (Susanti & Kurniawan, 2020).

Problem-solving skills are one of the ten most needed skills in the industry. The problem-solving ability of VHS students still needs to improve. It can be seen when the

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