Modul Pembelajaran Teknik Dasar Pengelasan SMAW (Shield Metal Arc Welding) Berbasis Virtual Reality *(Virtual Reality-Based Learning Module For Basic SMAW (Shield Metal Arc Welding) Techniques)*
Pembimbing (1 Orang)

Ulfiatun Hasanah
Study Program of Informatics Engineering
Majoring in Information Technology
Program Studi Teknik Informatika
Jurusan Teknologi Informasi

ABSTRACT

In welding techniques, the most commonly used basic method is SMAW (Shielded Metal Arc Welding), also known as electric arc welding. However, learning welding techniques is not an easy task for novice practitioners, as they must directly deal with welding equipment that poses risks such as sparks, metal fragments, ultraviolet radiation, and welding fumes. This study aims to develop a learning method for basic SMAW welding techniques using virtual reality, which will assist practitioners in learning SMAW welding more easily, effectively, and interactively without damaging objects and while minimizing the risk of failure and workplace accidents.The application was developed using the MDLC (Multimedia Development Life Cycle) method to ensure a more structured and efficient development process. This learning module provides information regarding the equipment required for the welding process as well as the proper steps to perform welding correctly. The success assessment process in this application is determined by whether the user can complete each stage correctly. In addition, a User Acceptance Test (UAT) was conducted, with the highest score of 43/45 (95,5%) obtained in question number 15, indicating that this application is highly recommended for beginners who want to learn the basic techniques of SMAW welding without direct safety risks.

Keywords*: Virtual Reality, Learning Module, SMAW, Basic Welding Techniques, Multimedia Development Life Cycle.*