

## ABSTRACT

**Muhammad Farhansyah, NIM:4191131029 (2019) Pengembangan e-Modul Berbasis Project Based Learning Pada Materi Asam Basa untuk SMA kelas XI**

This research aims to develop a project-based learning e-module on acid and base materials for class XI SMA. The type of research used is research and development (research and development), with a 4D development model consisting of 4 stages, namely the define, design, develop, and disseminate stages. These are media expert validators and material expert validators. The object of this development research is an e-module based on project-based learning on acid-base materials. Data collection techniques used validation sheets and questionnaires. This research was tested by material experts and media experts. The results of material expert validation obtained an average percentage of 89.18% in the suitable-to-use category, while the media expert validation results obtained a percentage of 93.75% in the suitable-to-use category. Based on the research results, it can be concluded that the e-module based on Project-Based Learning on Acids and Bases material for class XI SMA is declared suitable for use in the learning process.

Keywords: e-Module, Project Based Learning, Acid Base

