

ABSTRACT

The Development of Chemical Bonding E-Module Integrated Problem Based Learning Model and HOTS Problem

Dame Marta Panjaitan, Reg. Number 4173131004

This research objectives to determine the result of the analysis of disadvantages of handbook used in the school on chemical bonding topic, the feasibility level of the chemical bonding E-Module integrated PBL model and HOTS problem, student learning outcomes that taught using the chemical bonding E-Module integrated PBL model and HOTS problem higher than the KKM score. This research is a development research (Research & Development) with the ADDIE (Analysis, Design, Development, Implementation and Evaluation) model which was carried out in the odd semester of the 2020/2021 academic year. The implementation stage used a one group pretest-posttest design with sampling using a purposive sampling technique consisting of one experimental class, namely X IPA 1. The result of the analysis of handbook which used in school on chemical bonding material show disadvantages such as there is no core competence, there is no basic competence, indicators, there is no PBL syntax, there is no HOTS problem, the picture presented on the book is black and there is no motivational words so that it does not attract students' interest. The result of Chemical Bonding E-Module Integrated PBL Model and HOTS Problem validation average score on each aspect of content, language, visual presentation / appearance and graphics respectively of 3.36; 3.45; 2.94 and 3.80 and the average score from four aspect is 3.39, with very feasible categories. Meanwhile, in the e-module implementation, the average student learning outcomes is 84.42 higher than the KKM score, which is 75.

Keywords: e-module, Problem Based Learning, HOTS problem, learning outcomes, KKM, chemical bonding