ABSTRACT

Yohana Elisabet, IDN 4191131027 (2023). The Development of Virtual-Based Learning Media in Supporting Project-Based Learning to Improve Student Competence in Centrifuge Analysis.

The Development of Virtual-Based Learning Media in Supporting Project-Based Learning to Improve Student Competence in Centrifuge Analysis is explained. The purposing this study is to gather innovative learning materials for project-based learning from those who meet the requirements for presentation to the SNPT, and to examine how student performance is enhanced by using these materials to enhance project-based learning (PjBL) for topic of centrifugation. The study's sample is drawn at random from two classes. experiment class and control class. Used objective tests of student success that assess the validity, reliability, difficulty index, discrimination index, and distractor index as a way to gather data. The pre-test and post-test results of experimental class and control class are normal and homogeneous. The experimental class's increasing percentage of student learning outcomes (72.11%) was higher than control class's percentage (58.92%). So, the innovative learning media is effective to use. According to the findings, $t_{count} > t_{table}$, or $4.398 > 1.674$, at $= 0.05$. Project-based learning (PjBL) with innovative learning materials on the topic of centrifugation was valid and suitable for use, according to the chemistry lecturer's assessment (as validator expert). These factors were the feasibility of the content (3.78), language (3.46), presentation (3.50), and graphics (3.25).

Keyword: Project-Based Learning, Innovative Learning Media, Centrifugation, Learning Outcomes