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Implementation of Project-Based Learning Model with Edmodo Application in the Capita Selecta Chemistry Course

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ABSTRACT

This research is to preceive the learning outcomes and student responses to the applied models and applications. The type of research carried out was experimental research using a one group pretest-posttest design with the research subjects were 29 students of the fifth semester of 2019/2020 academic year who took Capita Selecta Chemistry Course. The data collection technique was carried out by means of test techniques, namely learning outcomes as seen from the pretest and posttest scores, as well as non-test techniques as seen from observation, interview and student response questionnaires to the application used via google form. The t test was carried out with the help of the SPSS 23 program. Based on the research conducted, there was an increase in student learning outcomes from a value of 65.172 (pretest average score) to 84.586 (posttest average score). The N-Gain score of 0.557 is included in the moderate category, indicating that there is a significant increase in student's critical thinking skills using the PjBL model and the Edmodo application. The results of the student response questionnaire stated that only 48.28% of students liked learning using the online/edmodo application. 51.72% of students still like direct/face-to-face learning. As many as 96.55% of students considered the Edmodo application to provide a new atmosphere in capita selecta lectures. The response to the edmodo application and the project model used was very good. Students are enthusiastic about the edmodo application because it has complete, interesting and easy to learn features. Project Based Learning (PjBL) learning model using the Edmodo application can be recommended to be applied by the lecture.

INTRODUCTION

24

Capita selecta in chemistry is a compulsory subject that must be taken by Chemistry Education students of Bengkulu University. This course as much as 2 credits, with the aim of discussing specific topics in the study of Chemistry and Chemistry Education based on the latest scientific developments, in order to increase student's scientific insight. Some of the educational topics discussed include 21st century learning; Science, Technology, Engineering and Mathematics (STEM); High Orders Thinking Skills (HOTS); Learning models; Electronic-based learning media. The 21st century education paradigm requires students to have academic skills, literacy and communication skills, critical and creative thinking (Jang, H. 2016).

Based on observations of lecturers and students in the previous year. Capita selecta lectures are conducted using lectures, group discussions and assignments to students. The specific learning models and applications have not been tried in lectures. The model applied in this research is the Project Based Learning (PjBL) model. PjBL is a learning model that requires students to produce a real product (Rahman, MK, et al. 2019). In this PjBL model the role of the lecturer as a facilitator directs students to daily

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