

ABSTRAK

PENGARUH MODEL *PROJECT BASED LEARNING* (PJBL) BERBANTU E-MODUL TERHADAP KEMAMPUAN BERPIKIR KREATIF DAN KOLABORASI PESERTA DIDIK SMP MATERI BIOTEKNOLOGI

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keaktivitas dan keterampilan kolaborasi merupakan kemampuan penting pada era globalisasi, penguasaan keduanya pada peserta didik masih tergolong rendah sehingga penelitian ini bertujuan untuk mengetahui pengaruh penerapan model *Project Based Learning* (PjBL) berbantu E-modul sebagai upaya meningkatkannya. Populasi penelitian terdiri dari seluruh peserta didik kelas IX dan sampel penelitian terdiri dari dua kelas yang dipilih secara *simple random sampling*. Jenis penelitian ini adalah *quasi eksperimen* dan menggunakan desain *non equivalent group design*, pada kelas eksperimen diberi perlakuan model PjBL berbantu E-modul dan model *discovery learning* dikelas kontrol. Jenis data berupa data kuantitatif dan kualitatif. Data kuantitatif diperoleh dari nilai *pretest* dan *posttest*, kemudian data kualitatif diperoleh dari angket tanggapan peserta didik, hasil lembar penilaian produk kreatif, dan hasil analisis lembar observasi keterampilan kolaborasi. Teknik pengumpulan data yaitu tes, angket, lembar penilaian, dan lembar observasi. Hasil penelitian menunjukkan bahwa rata-rata *posttest* berpikir kreatif kelas eksperimen sebesar 69,51 lebih tinggi dibandingkan kelas kontrol sebesar 60,80. Kemudian nilai rata-rata keterampilan kolaborasi juga lebih tinggi pada kelas eksperimen sebesar 76,77 kategori baik, sedangkan kelas kontrol sebesar 64,09 kategori cukup. Sehingga dapat disimpulkan bahwa pembelajaran dengan model PjBL berbantu E-modul pada materi bioteknologi berpengaruh terhadap peningkatan kemampuan berpikir kreatif dan kolaborasi peserta didik. Hasil penelitian ini dapat menjadi acuan bagi pendidik dan peneliti untuk menerapkan model PjBL dalam proses pembelajaran untuk mengembangkan kreativitas dan kolaborasi peserta didik.

Kata Kunci: Berpikir Kreatif, E-modul, Kolaborasi, *Project Based Learning*

ABSTRACT

THE EFFECT OF THE PROJECT-BASED LEARNING (PBL) MODEL SUPPORTED BY E-MODULES ON THE CREATIVE THINKING AND COLLABORATIVE SKILLS OF JUNIOR HIGH SCHOOL STUDENTS LEARNING BIOTECHNOLOGY

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Creativity and collaboration skills are important abilities in the era of globalization, but mastery of both among students is still relatively low. Therefore, this study aims to determine the effect of implementing the Project Based Learning (PjBL) assisted by E-modules as an effort to enhance them. The research population consists of all ninth-grade students, and the research sample consists of two classes selected through simple random sampling. This research is a quasi-experimental study using a non-equivalent group design, where the experimental class was given the PjBL model assisted by E-modules, and the control class was given the discovery learning model. The data types are quantitative and qualitative. Quantitative data were obtained from quantitative and qualitative data. Quantitative data were obtained from pretest and posttest scores, while qualitative data were obtained from student response questionnaires, results of creative product assessment sheets, and results of collaboration skill observation sheet analysis. Data collection techniques included tests, questionnaires, assessment sheets, and observation sheets. The research results showed that the average posttest score for creative thinking in the experimental class was 69.51, higher than the control class score of 60.80. Additionally, the average collaboration skill score was also higher in the experimental class at 76.77 (good category), while the control class score was 64.09 (adequate category). Therefore, it can be concluded that learning with the PjBL model assisted by E-modules on biotechnology material has an effect on improving the ability to think creatively and collaborate among students. The results of this study can be used as a reference for educators and researchers to apply the PjBL model in the learning process to develop creativity and collaboration among students.

Keywords: Creative Thinking, E-module, Collaboration, Project Based Learning