

ABSTRAK

Nenni, S. 2025. Pengaruh Penggunaan Model *Problem Based Learning* (PBL) Berbasis Pendekatan STEM terhadap Kemampuan Berpikir Kreatif Siswa pada Materi Sistem Perkembangbiakan Tumbuhan. Tesis. Program Magister Pendidikan IPA Universitas Jambi. Pembimbing I. Dr. Pinta Murni, M.Si. II. Dr. Drs. Syamsurizal, M.Si.

Penelitian ini bertujuan untuk menganalisis pengaruh model *problem based learning* (PBL) berbasis pendekatan STEM terhadap kemampuan berpikir kreatif siswa pada materi sistem perkembangbiakan tumbuhan. Desain yang digunakan yaitu quasi eksperimen dengan model *pre-test post-test control group*. Populasinya seluruh kelas IX MTS Laboratorium Jambi yang berjumlah 120 siswa, sedangkan sampel sebanyak 48 siswa yang terdiri dari kelas IX-D dan kelas IX-E. Instrumen yang digunakan yaitu tes uraian kemampuan berpikir kreatif, angket respon siswa terhadap model pembelajaran PBL berbasis STEM dan observasi. Teknik analisis data awal menggunakan uji normalitas, uji homogenitas, dan uji hipotesis sedangkan teknik analisis data akhir menggunakan uji N-Gain dan analisis data kemampuan berpikir kreatif. Hasil analisis kemampuan berpikir kreatif menunjukkan nilai N-Gain 0,57 pada kelas eksperimen termasuk kategori cukup efektif, sedangkan pada kelas kontrol dengan nilai N-GainM 0,44 termasuk kategori kurang efektif, model PBL dengan pendekatan STEM memiliki pengaruh sedang terhadap kemampuan berpikir kreatif. Berdasarkan hasil penelitian ditemukan indikator berpikir kreatif yang dominan yaitu pada *originality* cukup efektif sedangkan *flexibility* ternyata efektif.

Kata Kunci: PBL, STEM, berpikir kreatif, perkembangbiakan tumbuhan

ABSTRACT

Nenni, S. 2025. The Effect of Using Problem Based Learning (PBL) Model Based on STEM Approach on Students' Creative Thinking Ability on Plant Reproductive System Material. Thesis. Master of Science Education Program Jambi University, Supervisor I. Dr. Pinta Murni, M.Si. II. Dr. Drs. Syamsurizal, M.Si.

The purpose of this study is to analyze the influence of the problem-based learning (PBL) model based on the STEM approach on students' creative thinking ability in the subject of plant reproduction. The design used was quasi-experimental with a pretest-posttest control group model. The population is the entire IX MTS Laboratorium Jambi class, consisting of 120 students. The sample consists of 48 students from IX-D and IX-E classes. The instruments used are creative thinking ability tests, student response questionnaires to the PBL-STEM learning model, and observations. The initial data analysis technique used was normality testing, homogeneity testing, and hypothesis testing, while the final data analysis technique used was N-Gain testing and creative thinking ability analysis. The analysis of creative thinking ability showed that the N-Gain value was 0.57 for the experimental class, which is considered moderately effective. Meanwhile, the control class had an N-Gain value of 0.44, which is considered less effective. Thus, the PBL model with a STEM approach has a moderate influence on creative thinking ability. Based on the results of the study, the dominant creative thinking indicator was found to be originality, which was effective, while flexibility was effective.

Keywords: *PBL, STEM, creative thinking, plant reproduction*