

## ABSTRAK

Penelitian ini bertujuan untuk mengetahui peningkatan keterampilan berpikir kritis dan kreativitas serta mengetahui keterampilan kolaborasi dan komunikasi siswa yang mendapatkan pembelajaran berbasis proyek dan siswa yang mendapatkan pembelajaran berbasis masalah. Hasil penelitian 1) terdapat perbedaan signifikan antara keterampilan berpikir kritis siswa yang mendapatkan pembelajaran berbasis proyek dengan siswa yang mendapatkan pembelajaran berbasis masalah; 2) terdapat perbedaan signifikan antara kreativitas siswa yang mendapatkan pembelajaran berbasis proyek dengan siswa yang mendapatkan pembelajaran berbasis masalah; 3) keterampilan kolaborasi siswa yang mendapatkan pembelajaran berbasis proyek lebih baik daripada siswa yang mendapatkan pembelajaran berbasis masalah; 4) keterampilan komunikasi siswa yang mendapatkan pembelajaran berbasis proyek lebih baik daripada siswa yang mendapatkan pembelajaran berbasis masalah; Secara umum pembelajaran berbasis proyek dan pembelajaran berbasis masalah dapat meningkatkan keterampilan keterampilan berpikir kritis, kreativitas, kolaborasi, dan komunikasi siswa pada mata pelajaran fisika dengan topik energi.

Kata kunci: pembelajaran berbasis proyek, pembelajaran berbasis masalah, berpikir kritis, kreativitas, kolaborasi, komunikasi, keterampilan abad 21.

## ABSTRACT

The aims of this thesis are to determine the increase of critical thinking skills and creativity, as well as knowing the skills of collaboration and communication students who received project-based learning and students who received problem-based learning. Results of the study 1) there is a significant difference between critical thinking skills of students who received project-based learning and students who received problem-based learning; 2) there is a significant difference between the creativity of the students who received project-based learning and students who received problem-based learning; 3) collaborative skills of students who received project-based learning is better than students who received problem-based learning; 4) The communication skills of students who received project-based learning is better than students who received problem-based learning; In general, project-based learning and problem-based learning can improve critical thinking skills, creativity, collaboration, and communication of students on physics lesson.

Keywords: project-based learning, problem-based learning, critical thinking, creativity, collaboration, communication, 21st century skills.