

ABSTRAK

Ajeng Derlina Miftahul Jannah (1212060007): Keterampilan Berpikir Sistem (KBS) Siswa menggunakan Model Pembelajaran *Project Based Learning* pada Materi Ekosistem.

Keterampilan berpikir sistem merupakan bagian dari kompetensi abad 21 dan keterampilan berpikir tingkat tinggi yang penting pada pendidikan sains. Penelitian ini bertujuan menganalisis peningkatan KBS siswa menggunakan model pembelajaran *Project Based Learning* pada materi ekosistem. Penelitian ini menggunakan metode quasi-eksperimental dengan desain *non equivalent control group* dengan teknik pengambilan sampel *purposive sampling*. Instrumen penelitian terdiri atas lembar observasi, tes pilihan ganda dengan indikator KBS, serta angket respon siswa. Penelitian dilaksanakan di salah satu SMA Negeri kabupaten Sumedang dengan jumlah sampel 74 siswa. Hasil penelitian menunjukkan bahwa keterlaksanaan aktivitas guru dan siswa pada kelas eksperimen berada pada kategori sangat baik, sedangkan pada kelas kontrol aktivitas guru terkategori sangat baik, namun aktivitas siswa berada pada kategori baik. Peningkatan KBS kelas eksperimen 0,34 (kategori sedang) dan kelas kontrol 0,24 (kategori rendah). Uji hipotesis menunjukkan terdapat perbedaan signifikan KBS antara kelas eksperimen dan kontrol. Uji *effect size* menunjukkan nilai 0,65 (kategori sedang). Implikasi dari penelitian ini adalah pembelajaran dengan model PjBL dapat membekali KBS siswa khususnya pada materi ekosistem.

Kata Kunci: Keterampilan Berpikir Sistem, *Project Based Learning*, Ekosistem



ABSTRACT

Ajeng Derlina Miftahul Jannah (1212060007): *Students' Systems Thinking Skills (KBS) Using the Project-Based Learning Model in Ecosystem Material.*

Systemic thinking skills are part of 21st century competencies and important higher-order thinking skills in science education. This study aims to analyze the improvement of students' KBS using the Project Based Learning model in ecosystem material. This study uses a quasi-experimental method with a non-equivalent control group design and purposive sampling technique. The research instruments consisted of observation sheets, multiple-choice tests with KBS indicators, and student response questionnaires. The study was conducted at a public high school in Sumedang Regency with a sample size of 74 students. The results showed that the implementation of teacher and student activities in the experimental class was categorized as very good, while in the control class, teacher activities were categorized as very good, but student activities were categorized as good. The increase in KBS in the experimental class was 0.34 (moderate category) and in the control class was 0.24 (low category). The hypothesis test showed a significant difference in KBS between the experimental and control classes. The effect size test showed a value of 0.65 (moderate category). The implication of this study is that learning with the PjBL model can equip students with KBS, especially on ecosystem material.

Keywords: *Systems Thinking Skills, Project-Based Learning, Ecosystem*

