

ABSTRAK

Putri Wahyuni Amanda Br D. Munthe, NIM 4202441014 (2024). Pengaruh Model *Problem Based Learning* terhadap Hasil Belajar dan Keterampilan Abad 21 pada Siswa Kelas X Materi Ekosistem di SMAN 1 Kisaran.

Penelitian ini bertujuan untuk mengetahui pengaruh model *Problem Based Learning* terhadap hasil belajar dan keterampilan abad 21 pada siswa kelas X materi ekosistem di SMAN 1 Kisaran. Jenis penelitian ini adalah penelitian kuasi eksperimen. Populasi pada penelitian ini adalah seluruh kelas X di SMAN 1 Kisaran dengan total 10 kelas dan sebanyak 320 siswa. Penentuan sampel menggunakan teknik *cluster random sampling* yaitu kelas X-7 sebagai kelas eksperimen yang diberi perlakuan *Problem Based Learning* dan X-8 sebagai kelas kontrol yang diberikan perlakuan model konvensional dengan total 64 siswa. Teknik pengumpulan data dilakukan dengan pemberian instrument tes dan angket. Dari hasil penelitian diperoleh rata-rata hasil belajar siswa pada kelas eksperimen sebesar 84,18 dan kelas kontrol sebesar 78,96. Analisis hipotesis menggunakan uji *Independent Sample T-Test* dengan bantuan aplikasi SPSS versi 29 dengan perolehan nilai sig. $0,041 < 0,05$. Sedangkan pada analisis data angket keterampilan abad 21 siswa diperoleh rata-rata kelas eksperimen sebesar 76,75 dan kelas kontrol 57,43. Pengujian hipotesis menggunakan uji *Mann Whitney U* dengan bantuan aplikasi SPSS versi 29 dengan perolehan nilai sig. $0,001 < 0,05$. Pengujian hipotesis ini menunjukkan bahwa model *Problem Based Learning* memberikan pengaruh terhadap hasil belajar dan keterampilan abad 21 pada siswa kelas X materi ekosistem di SMAN 1 Kisaran.

Kata Kunci: *Problem Based Learning*, Hasil Belajar, Keterampilan Abad 21, Ekosistem

ABSTRACT

Putri Wahyuni Amanda Br D. Munthe, NIM 4202441014 (2024). The Effect of Problem Based Learning Model on Learning Outcomes and Skills in the 21st Century in Class X Students of Ecosystem Materials at SMAN 1 Kisaran.

This study aims to know the effect of the Problem Based Learning model on learning outcomes and 21st century skills in class X students of ecosystem material at SMAN 1 Kisaran. This type of research is a quasi-experimental study. The population in this study were all class X at SMAN 1 Kisaran with a total of 10 classes and 320 students. The sample determination used the cluster random sampling technique, namely class X-7 as the experimental class given Problem Based Learning treatment and X-8 as the control class given conventional model treatment with a total of 64 students. Data collection techniques were carried out by providing test instruments and questionnaires. From the results of the study, the average learning outcomes of students in the experimental class were 84.18 and the control class was 78.96. Hypothesis analysis used the Independent Sample T-Test with the help of the SPSS version 29 application with a sig. value of $0.041 < 0.05$. While in the analysis of the questionnaire data on students' 21st century skills, the average experimental class was 76.75 and the control class was 57.43. Hypothesis testing using the Mann Whitney U test with the help of the SPSS version 29 application with a sig. value of $0.001 < 0.05$. This hypothesis testing shows that the Problem Based Learning model has an influence on learning outcomes and 21st century skills in class X students of ecosystem material at SMAN 1 Kisaran.

Keywords: Problem Based Learning, Learning Outcomes, 21st Century Skills, Ecosystem