EFEKTIVITAS *PROBLEM BASED LEARNING* (PBL) BERBANTUAN E-MODUL MATERI PENCEMARAN LINGKUNGAN UNTUK MENINGKATKAN *HIGHER ORDER THINKING SKILLS* (HOTS) SISWA KELAS X SMA NEGERI 1 SINGARAJA

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ABSTRAK

Penelitian ini bertujuan untuk mengetahui efektivitas *Problem Based Learning* berbantuan E-Modul dalam meningkatkan *HOTS* siswa pada materi pencemaran lingkungan. Jenis penelitian yaitu kuasi eksperimen dengan desain rancangan penelitian *Non-equivalent Control Group Design*. Sampel penelitian adalah siswa kelas X di SMAN 1 Singaraja yang dipilih secara undian. Dari hasil undian terpilih kelas X-H sebagai kelas eksperimen yaitu pembelajaran dengan *Problem Based Learning* berbantuan E-Modul dan kelas X-I sebagai kelas kontrol yaitu pembelajaran dengan *Problem Based Learning* tanpa bantuan E-Modul. Teknik pengambilan data dalam penelitian ini, menggunakan tes uraian dalam bentuk wacana. Data dianalisis dengan menggunaan Indeks Efektivitas (IE) untuk mengetahui efektivitas *Problem Based Learning* berbantuan E-Modul dalam meningkatkan *HOTS* siswa. Hasil analisi data menunjukkan nilai Indeks Efektivitas (IE) yaitu 100% dengan kategori sangat baik. Hasil uji hipotesis menunjukkan bahwa nilai $Z_{Hitung} > Z_{0,05}$ (2,327 > 1,645). Hal ini berarti efektivitas implementasi *Problem Based Learning* berbantuan E-Modul pada materi pencemaran lingkungan lebih baik dalam meningkatkan *HOTS* siswa dibandingkan dengan menggunakan *Problem Based Learning* tanpa bantuan E-Modul.

Kata Kunci: Efektivitas, E-Modul, PBL, *HOTS*

THE EFFECTIVENESS OF PROBLEM BASED LEARNING (PBL)
ASSISTED BY E-MODULE ON ENVIRONMENTAL POLLUTION
MATERIAL TO IMPROVE HIGHER ORDER THINKING SKILLS (HOTS)
OF STUDENTS IN CLASS X SMA NEGERI 1 SINGARAJA

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ABSTRACT

This study aims to determine the effectiveness of Problem Based Learning assisted by E-Module in improving students' HOTS on environmental pollution material. This type of research is a quasi-experiment with the research design of Non-equivalent Control Group Design. The research sample was class X students at SMAN 1 Singaraja who were selected by lottery. From the results of the lottery, class X-H was selected as the experimental class, namely learning with Problem Based Learning assisted by E-Modul and class X-I as the control class, namely learning with Problem Based Learning without the help of E-Modul. Data collection techniques in this study, using a description test in the form of discourse. The data were analyzed using the Index of Effectiveness (IE) to determine the effectiveness of Problem Based Learning assisted by E-Module in improving students' HOTS. The results of data analysis showed that the Effectiveness Index (IE) value was 100% with a very good category. The results of hypothesis testing show that the value of Zcount> Z0.05 (2.327> 1.645). This means that the effectiveness of Problem Based Learning implementation assisted by E-Module on environmental pollution material is better in improving students' HOTS compared to using Problem Based Learning without the help of E-Module.

Keywords: Effectiveness, E-Module, PBL, HOTS