

ABSTRAK

PENGARUH MODEL *INQUIRY-BASED LEARNING (IBL)* DALAM IMPLEMENTASI *DEEP LEARNING* TERHADAP KEMAMPUAN *SYSTEMS THINKING* SISWA SMA PADA MATERI EKOSISTEM

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Penelitian ini bertujuan untuk mengetahui pengaruh model *inquiry-based learning* (IBL) dalam implementasi *deep learning* terhadap kemampuan *systems thinking* pada materi ekosistem. Penelitian ini menggunakan jenis penelitian *quasy experiment* dengan desain penelitian *pretest-posttest non-equivalent control group design*. Populasi pada penelitian ini adalah seluruh peserta didik kelas X di SMA Negeri 1 Bandar Lampung yang berjumlah 315 yang terbagi menjadi 9 kelas. Sampel pada penelitian ini adalah kelas X.6 sebagai kelas kontrol menggunakan model *discovery learning* dan X.8 sebagai kelas eksperimen menggunakan model IBL dalam implementasi *deep learning*. Teknik pengambilan sampel menggunakan teknik *purposive sampling*. Teknik pengumpulan data kuantitatif pada kemampuan *systems thinking* berupa tes uraian. Data kemampuan *systems thinking* diperoleh melalui tes dan dianalisis menggunakan uji *Independent Sample t-Test*, sedangkan data tanggapan peserta didik diambil dengan angket lalu dianalisis secara kuantitatif deskriptif. Hasil penelitian menunjukkan bahwa penerapan model IBL dalam Implementasi *Deep Learning* memberikan pengaruh signifikan terhadap kemampuan *systems thinking* menggunakan uji *Independent Sample t-Test* dengan nilai *Sig. (2-tailed)* $0,01 < 0,05$ artinya H_1 diterima. Hasil uji *effect size* menunjukkan model IBL dalam implementasi *deep learning* berpengaruh sedang (0,796) terhadap kemampuan *systems thinking*. Rata-rata *N-Gain* kemampuan *systems thinking* pada kelompok eksperimen sebesar 0,65 (kategori sedang), lebih tinggi dibandingkan rata-rata *N-Gain* pada kelompok kontrol yang sebesar 0,48 (kategori sedang). Aspek *behavior* memperoleh nilai *N-Gain* tertinggi sebesar 0,71 (kategori tinggi), diikuti oleh aspek *structure* 0,64, aspek *content* 0,61 dan aspek *mindset* 0,59 (kategori sedang). Hasil analisis data angket tanggapan setelah perlakuan mencapai persentase 76,51% (kategori baik) dalam melatih kemampuan *systems thinking*. Dengan demikian penerapan model IBL dalam implementasi *deep learning* berpengaruh signifikan terhadap kemampuan *systems thinking* peserta didik.

Kata Kunci: *Deep Learning, Inquiry-Based Learning, Systems Thinking.*

ABSTRACT

THE EFFECT OF THE INQUIRY-BASED LEARNING (IBL) MODEL IN THE IMPLEMENTATION OF DEEP LEARNING ON HIGH SCHOOL STUDENTS' SYSTEMS THINKING ABILITIES IN ECOSYSTEMS

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This study aims to determine the effect of the Inquiry-Based Learning (IBL) model in the Implementation of Deep Learning on systems thinking abilities in ecosystem material. This study uses a quasi-experimental research type with a pretest-posttest non-equivalent control group design. The population in this study were all 315 students of grade X at SMA Negeri 1 Bandar Lampung, divided into 9 classes. The sample in this study was class X.6 as a control class using the discovery learning model and X.8 as an experimental class using the IBL model in the implementation of deep learning. The sampling technique used a purposive sampling technique. The quantitative data collection technique on systems thinking abilities was in the form of a descriptive test. Data on systems thinking abilities were obtained through tests and analyzed using the Independent Sample t-Test, while student response data were taken with a questionnaire and then analyzed quantitatively descriptively. The results showed that the application of the IBL model in the Implementation of Deep Learning had a significant effect on systems thinking abilities using the Independent Sample t-Test with a Sig. (2-tailed) value of $0.01 < 0.05$, meaning H_1 was accepted. The results of the effect size test show that the IBL model in the implementation of deep learning has a moderate effect (0.796) on systems thinking abilities. The average N-Gain of systems thinking abilities in the experimental group was 0.65 (moderate category), higher than the average N-Gain in the control group which was 0.48 (moderate category). The behavior aspect obtained the highest N-Gain value of 0.71 (high category), followed by the structure aspect of 0.64, the content aspect of 0.61 and the mindset aspect of 0.59 (moderate category). The results of the questionnaire response data analysis after the treatment reached a percentage of 76.51% (good category) in training systems thinking abilities. Thus, the application of the IBL model in the Implementation of Deep Learning has a significant effect on students' systems thinking abilities.

Keywords: Deep Learning, Inquiry-Based Learning, Systems Thinking.