PENGARUH MODEL *DISCOVERY LEARNINGBERBANTUAN APLIKASI E-DETERMINASI* TERHADAP KEMAMPUAN PENALARAN ILMIAH PADA MATERI KLASIFIKASI MAHLUK HIDUP

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Penelitian ini bertujuan untuk mengetahui pengaruh model *Discovery learning* berbantuan aplikasi e-determinasi terhadap kemampuan Penalaran Ilmiah peserta didik pada materi Klasifikasi Mahluk Hidup. Penelitian ini menggunakan desain eksperimental semu dengan pola desain yaitu *Pretest- Posttest Non-equivalen Control Group Design*. Subjek penelitian ini adalah peserta didik kelas VII SMP Negeri 14 Bandar Lampung yang berjumlah 346 orang dengan sampel diambil dengan teknik *purpossive sampling,* sehingga terpilih 66 peserta didik yaitu kelas VII-A dan VII-B. Data kemampuan Penalaran Ilmiah diambil menggunakan tes dan dianalisis menggunakan *Independent sample t-Test,* sedangkan data tanggapan peserta didik dan keterlaksanaan sintaks diambil dengan angket dan dianalisis secara deskriptif. Hasil analisis data menunjukkan bahwa kemampuan Penalaran Ilmiah kelas eksperimen lebih tinggi (*N-Gain* = 0,45) dibandingkan dengan kelas kontrol (*N- Gain* = 0,28). Hasil uji *Independent sample t-Test* didapatkan nilai *sig (2-tailed)* 0,00 < 0,05 artinya H_1 diterima. Hasil juga didukung oleh uji *Effect Size* yang menguatkan bukti efektivitas model *Discovery learning* berbantuan aplikasi e-determinasi berpengaruh besar (1,126) terhadap kemampuan Penalaran Ilmiah. Indikator kemampuan Penalaran Ilmiah yang tertinggi pada kelas eksperimen yaitu *Konservasi* (*N-Gain* = 0,70) dengan kategori "tinggi" dan yang paling rendah yaitu indikator *Hipotesis Deduktif* (*N-Gain* = 0,13). Hasil analisis data angket tanggapan peserta didik menunjukkan bahwa hampir sebagian besar (87,11%) memberikan tanggapan positif tentang pengaruh Model *Discovery learning* berbantuan aplikasi e-determinasi terhadap kemampuan Penalaran Ilmiah. Dengan demikian, dapat disimpulkan bahwa penerapan model *Discovery learning* berbantuan aplikasi e-determinasi berpengaruh signifikan terhadap kemampuan Penalaran Ilmiah peserta didik.

Kata kunci: *Discovery learningBerbantuan Aplikasi e-determinasi*, Kemampuan *Penalaran Ilmiah*, Klasifikasi Mahluk Hidup

ABSTRACT

THE EFFECT OF STEM INTEGRATED PROBLEM-BASED LEARNING MODEL ON CPS *SKILLS ON CLIMATE CHANGE MATERIALS*

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This study aims to determine the effect of the *Discovery learning* model assisted by the e-determinasi application on students' Scientific Reasoning Ability in the topic of Classification of Living Things. The research employed a quasi-experimental design with a *Pretest*-Posttest Non-Equivalent Control Group Design. The research subjects were seventh-grade students of SMP Negeri 14 Bandar Lampung, totaling 346 students, with a sample of 66 students selected using purposive sampling, consisting of class VII-A and VII-B. Data on students' Scientific Reasoning Ability were collected through tests and analyzed using the *Independent sample t-Test*, while data on students' responses and the implementation of syntax were obtained through questionnaires and analyzed descriptively. The results showed that the Scientific Reasoning Ability of the experimental class was higher (*N-Gain* = 0.45) than that of the control class (*N-Gain* = 0.28). The *Independent sample t-Test* yielded a significance value of 0.00 < 0.05, indicating that H1 was accepted. These results were further supported by the *Effect Size* test, which confirmed that the *Discovery learning* model assisted by the e-determinasi application had a large effect (1.126) on Scientific Reasoning Ability. Among the indicators of Scientific Reasoning Ability, the highest in the experimental class was Conservation (*N-Gain* = 0.70) in the "high" category, while the lowest was the Deductive Hypothesis indicator (*N-Gain* = 0.13). Questionnaire analysis revealed that the majority of students (87.11%) gave positive responses regarding the influence of the *Discovery learning* model assisted by the e-determinasi application on Scientific Reasoning Ability. Therefore, it can be concluded that the application of the *Discovery learning* model assisted by the e-determinasi application significantly affects students' Scientific Reasoning Ability.

Keywords: Classification of Living Things, *Discovery learning* assisted by e-determinasi application, Scientific Reasoning Ability.