

## ABSTRAK

**Lina Inayah** “Penerapan Model Pembelajaran *Discovery Based Unity of Science* (DBUS) Berbantuan PhET untuk Meningkatkan Keterampilan Berpikir Kritis Peserta Didik pada Materi Fluida Statis.”

Penelitian ini bertujuan untuk menganalisis keterlaksanaan pembelajaran menggunakan model *Discovery Based Unity of Science* (DBUS) berbantuan PhET serta pengaruhnya terhadap keterampilan berpikir kritis peserta didik berdasarkan kelompok kemampuan awal tinggi, sedang, dan rendah pada materi fluida statis. Penelitian ini menggunakan pendekatan kuantitatif dengan desain *one-group pretest-posttest design*. Subjek penelitian terdiri atas 64 peserta didik kelas XI. Data dikumpulkan melalui tes keterampilan berpikir kritis dan lembar observasi keterlaksanaan pembelajaran. Hasil penelitian menunjukkan keterlaksanaan pembelajaran pada kelas XI A sebesar 91% untuk kegiatan guru dan 88% untuk kegiatan peserta didik, sedangkan kelas XI B masing-masing sebesar 83% dan 84%. Rata-rata *N-Gain* keterampilan berpikir kritis kelompok tinggi sebesar 0,64, sedang 0,59, dan rendah 0,51, seluruhnya kategori sedang. Hasil uji regresi menunjukkan nilai signifikansi 0,007 pada kelompok tinggi, 0,380 pada kelompok sedang, dan 0,931 pada kelompok rendah. Dengan demikian, keterampilan berpikir kritis meningkat pada ketiga kelompok, tetapi pengaruh model DBUS berbantuan PhET hanya signifikan pada kelompok kemampuan awal tinggi.

**Kata Kunci:** *Discovery Based Unity of Science* (DBUS), fluida statis, kemampuan awal, keterampilan berpikir kritis, PhET.



## ABSTRACT

**Lina Inayah** “The Implementation of the Discovery Based Unity of Science (DBUS) Learning Model Assisted by PhET to Improve Students’ Critical Thinking Skills on Static Fluid.”

This study aimed to analyze the implementation of learning using the Discovery Based Unity of Science (DBUS) learning model assisted by PhET and its effect on students’ critical thinking skills based on high, medium, and low initial ability groups on the topic of static fluids. This study employed a quantitative approach with a one-group pretest-posttest design. The subjects consisted of 64 eleventh-grade students. Data were collected through a critical thinking skills test and a learning implementation observation sheet. The results showed that the implementation of learning in class XI A reached 91% for teacher activities and 88% for student activities, while in class XI B, the respective percentages were 83% and 84%. The average N-Gain of critical thinking skills was 0.64 for the high initial ability group, 0.59 for the medium group, and 0.51 for the low group, all of which were categorized as moderate. The regression test results showed significance values of 0.007 for the high group, 0.380 for the medium group, and 0.931 for the low group. Thus, students’ critical thinking skills increased in all three groups; however, the effect of the DBUS learning model assisted by PhET was statistically significant only in the high initial ability group.

**Keywords:** *Discovery Based Unity of Science (DBUS)*, static fluids, initial ability, critical thinking skills, PhET.

