

ABSTRAK

Deo Demonta Panggabean, Analisis Pemahaman Konsep Awal dan Kemampuan Berpikir Kritis Bidang Studi Fisika Menggunakan Model Pembelajaran *Advance Organizer* dan Model Pembelajaran *Direct Instruction*. Program Pascasarjana Universitas Negeri Medan 2013.

Penelitian ini bertujuan: (1) untuk menganalisis apakah ada perbedaan tingkat kemampuan berpikir kritis fisika siswa yang diajarkan dengan model pembelajaran *advance organizer* dan model pembelajaran *direct instruction*, (2) untuk menganalisis apakah ada perbedaan kemampuan berpikir kritis fisika siswa pada kelompok pemahaman konsep awal tinggi dan pemahaman konsep awal rendah, (3) untuk menganalisis apakah ada interaksi model pembelajaran *advance organizer* dengan tingkat pemahaman konsep awal siswa untuk meningkatkan kemampuan berpikir kritis. Sampel dalam penelitian ini dilakukan secara *cluster random sampling* sebanyak dua kelas, dimana kelas pertama sebagai kelas eksperimen diterapkan model pembelajaran *advance organizer* dan kelas kedua sebagai kelas kontrol diterapkan model pembelajaran *direct instruction*. Instrumen yang digunakan dalam penelitian ini yaitu instrumen pemahaman konsep awal dalam bentuk uraian sebanyak 5 soal dan instrumen kemampuan berpikir kritis dalam bentuk uraian sebanyak 8 soal yang telah dinyatakan valid dan secara keseluruhan memiliki reliabilitas sangat tinggi. Dari hasil penelitian diperoleh rata-rata kemampuan berpikir kritis untuk kelas eksperimen lebih tinggi dari kelas kontrol, dan kesimpulan bahwa untuk hipotesis pertama kemampuan berpikir kritis fisika siswa melalui *advance organizer* (AO) lebih baik dibandingkan *direct instruction* (DI). Untuk hipotesis kedua disimpulkan bahwa kemampuan berpikir kritis fisika antara siswa yang memiliki pemahaman konsep awal tinggi lebih baik dibandingkan dengan pemahaman konsep awal rendah. Sedangkan untuk hipotesis ketiga menunjukkan bahwa tidak terdapat interaksi antara model *advance organizer* (AO) dan *direct instruction* (DI) dengan pemahaman konsep awal siswa untuk meningkatkan kemampuan berpikir kritis.

ABSTRACT

Deo Demonta Panggabean. The analysis of understanding the beginning concept and the ability in critical thinking in the physic lesson by using advance organizer and direct instruction models

The research were be purposed: (1) to analyze if there were the differences of the students' ability in thinking critically to the physic lesson taught by using advance organizer and direct instruction models, (2) to analyze if there were the differences of the students' ability in thinking critically in the physic lesson by understanding the high and low beginning concept, (3) to analyze if there were interaction in advance organizer models to the students' beginning concept, so can improve their ability in thinking critically. The sample in this research done by cluster random sampling at two classes, for the first class can be mentioned as the experiment class used advance organizer models, and the second class can be mentioned as a control class used direct instruction models. The instrument used in this research were the understanding of the beginning concept in description forms about 5 questions, and the instrument of thinking ability critically in description forms about 8 questions state valid and had a high reliability. For the experiment's results obtained that the average of the ability critical thinking for experiment class was higher than control class, and the conclusion were at the first hypothesis of the students' ability in critical thinking to physic lesson by using advance organizer (AO) was better than direct instruction (DI). At the second hypothesis could be concluded that the ability of critical thinking to physic lesson between student who had the understanding of high begining concept was more better than the understanding of low beginning concept. And for the third hypothesis shown that there were not interactions between advance organizer (AO) and direct instruction (DI) with the understanding of the students' beginning concept in improving their critical thinking ability.