

## ABSTRACT

**Wasri Aminah. NIM. 8156174036. The Effect of Inquiry and Advance Organizer Learning Models On Students' Higher-Ordered Thinking and Science Process Skills of Respiratory System at MAN Rantauprapat, Labuhanbatu Regency. Thesis: Postgraduate Program of Medan State University. 2017.**

This study aimed to find out the effect of inquiry and advance organizer learning models on students' higher-ordered thinking and science process skills of respiratory system at MAN Rantauprapat. This study was conducted in 3 classes, namely XI<sub>2</sub> treated by using inquiry learning model, grade XI<sub>3</sub> treated by using advance organizer and grade XI<sub>4</sub> treated by using conventional learning method. The data collecting instruments of students' higher-ordered thinking skills and science process skills were essay tests. The technique of data analysis which was used namely an analysis of covariate (ANCOVA) with  $\alpha = 0,05$ . The results of this study showed that the score of students' higher-ordered thinking skills taught by an inquiry learning model was 31,21% higher than students' higher-ordered thinking skills taught by a conventional learning method but was not significantly different than taught by an advance organizer learning model was 28,92% ( $F = 466,66$ ;  $P = 0,000$ ). The score of students' science process skills taught by an inquiry learning model was 29,19% higher than students' science process skills taught by a conventional learning method but was not significantly different than taught by an advance organizer 27,47% ( $F = 362,48$ ;  $P = 0,000$ ). This study concluded that either an inquiry and advance organizer learning model significantly influenced students' higher-ordered thinking and science process skills on the matter of respiratory system at MAN Rantauparapat.

**Keywords:** Higher-Ordered Thinking Skills, Science Process Skills, Advance Organizer, Inquiry, Respiratory System.

## ABSTRAK

**Wasri Aminah. NIM. 8156174036. Pengaruh Model Pembelajaran Inkuiri dan Advance Organizer Terhadap Keterampilan Proses Sains Siswa dan Kemampuan Berpikir Tingkat Tinggi Pada Materi Sistem Pernapasan di MAN Rantauprapat Kabupaten Labuhanbatu. Tesis: Program Pascasarjana Universitas Negeri Medan. 2017.**

Tujuan penelitian ini adalah untuk mengetahui pengaruh model pembelajaran inkuiri dan *advance organizer* terhadap keterampilan proses sains siswa dan kemampuan berpikir tingkat tinggi pada materi Sistem Pernapasan di MAN Rantauprapat. Penelitian ini dilakukan pada 3 kelas yaitu kelas XI<sub>2</sub> dengan model inkuiri, kelas XI<sub>3</sub> dengan model *advance organizer*, dan kelas XI<sub>4</sub> dengan model konvensional. Instrumen pengumpulan data keterampilan proses sains dan kemampuan berpikir tingkat tinggi berbentuk tes uraian. Teknik analisis data yang digunakan adalah teknik analisis kovariat (kovariat pretes) dengan  $\alpha = 0,05$ . Hasil penelitian menunjukkan skor keterampilan proses sains siswa yang dibelajarkan dengan model pembelajaran inkuiri 29,19% lebih tinggi dibanding dengan skor keterampilan proses sains siswa yang dibelajarkan dengan model pembelajaran konvensional namun tidak berbeda signifikan dibanding yang dibelajarkan dengan model *advance organizer* 27,47% ( $F = 362,48$ ;  $P = 0,000$ ). Skor kemampuan berpikir tingkat tinggi siswa yang dibelajarkan dengan model pembelajaran inkuiri 31,21% lebih tinggi dibanding dengan skor kemampuan berpikir tingkat tinggi siswa yang dibelajarkan dengan model pembelajaran konvensional namun tidak berbeda signifikan dibanding yang dibelajarkan dengan model *advance organizer* 28,92% ( $F = 466,66$ ;  $P = 0,000$ ). Kesimpulan penelitian ini bahwa model pembelajaran Inkuiri dan *advance organizer* berpengaruh signifikan terhadap keterampilan proses sains siswa dan kemampuan berpikir tingkat tinggi pada materi sistem pernapasan di MAN Rantauprapat.

**Kata Kunci: Kemampuan Berpikir Tingkat Tinggi, Keterampilan Proses Sains, Advance Organizer, Inkuiri, Sistem Pernapasan**

