

ABSTRAK

BABY ARLITA LUBIS. Pengaruh Model Pembelajaran *Inquiry* Terhadap Hasil Belajar, Kemampuan Berpikir Kritis dan Keterampilan Proses Sains Siswa pada Materi Pencemaran Lingkungan di SMA Swasta PAB 8 Saentis. Tesis. Program Pascasarjana Universitas Negeri Medan. 2016.

Penelitian ini bertujuan untuk mengetahui pengaruh model pembelajaran terhadap: (1) hasil belajar; (2) kemampuan berpikir kritis; dan (3) keterampilan proses sains siswa pada materi pencemaran lingkungan di SMA Swasta PAB 8 Saentis. Metode penelitian menggunakan *quasi experiment* dengan sampel penelitian sebanyak 3 kelas yang ditentukan secara acak dengan menggunakan teknik *cluster random sampling*. Pada kelas X₂ dibelajarkan dengan model pembelajaran *guided inquiry*, kelas X₅ dibelajarkan dengan model pembelajaran *modified free inquiry*, dan kelas X₃ dengan model pembelajaran tradisional. Instrumen yang digunakan dalam penelitian ini yaitu tes hasil belajar dalam bentuk pilihan ganda, tes kemampuan berpikir kritis dalam bentuk pilihan ganda, dan tes keterampilan proses sains dalam bentuk tes tertulis. Teknik analisis data menggunakan Analisis Kovariat (Anacova) dengan bantuan program *SPSS 21.0 for Windows*. Hasil penelitian menunjukkan bahwa ada pengaruh model pembelajaran terhadap: (1) hasil belajar ($F=6,58$; $P=0,002$); (2) kemampuan berpikir kritis ($F=26,88$; $P=0,000$); dan (3) keterampilan proses sains ($F= 6,54$; $P= 0,002$). Hasil belajar siswa yang dibelajarkan dengan model *guided inquiry* ($73,36\pm 11,443$) tidak berbeda secara signifikan dengan model *modified free inquiry* ($67,27\pm 12,050$) ($P=0,057$) dan berbeda secara sangat signifikan yang dibelajarkan dengan model tradisional ($64,00\pm 13,561$) ($P=0,001$). Kemampuan berpikir kritis siswa yang dibelajarkan dengan model *guided inquiry* ($61,36\pm 16,234$) berbeda secara sangat signifikan dengan model *modified free inquiry* ($72,22\pm 11,237$) ($P=0,003$), dan berbeda secara sangat signifikan dengan yang dibelajarkan menggunakan model tradisional ($49,00\pm 17,184$) ($P=0,000$). Keterampilan proses sains siswa yang dibelajarkan dengan model *guided inquiry* ($59,14\pm 12,820$) tidak berbeda secara signifikan dengan model *modified free inquiry* ($54,27\pm 13,781$) ($P=0,194$) tetapi berbeda secara sangat signifikan yang dibelajarkan dengan model tradisional ($49,09\pm 12,939$) ($P=0,001$). Tindak lanjut dari hasil penelitian ini diharapkan kepada guru untuk dapat menerapkan model pembelajaran *guided inquiry* ataupun *modified free inquiry* pada materi pencemaran lingkungan dalam upaya meningkatkan hasil belajar, kemampuan berpikir kritis, dan keterampilan proses sains siswa.

Kata Kunci: *Guided Inquiry, Modified Free Inquiry, Tradisional, Hasil Belajar, Kemampuan Berpikir Kritis, Keterampilan Proses Sains, Pencemaran Lingkungan.*

ABSTRACT

BABY ARLITA LUBIS. The Effect of Inquiry based Learning Model on Students' Learning Outcome, Critical Thinking Skill, and Science Process Skill of The Environmental Pollution Topic at SMA Swasta PAB 8 Saentis. Thesis. Graduate Program of State University of Medan. 2016.

This study aims to determine the effect of inquiry based learning model on students': (1) learning outcome; (2) critical thinking skill; and (3) science process skill of the environmental pollution topic at SMA Swasta PAB 8 Saentis. The research method used is quasi experiment with sample as much as 3 classes, those are taken by using the technic of cluster random sampling. Guided inquiry based learning model is taught in class X₂, modified free inquiry based learning model is taught in class X₅, and traditional based learning model is taught in class X₃. The instruments are used in this study are learning outcome test which form multiple choice, critical thinking skill test which form multiple choice, and science process skill wich form essay test. The technique of data analysis used in this study is analysis covariat by using the program of SPSS 21.0 for Windows. The study results showed that there were effect of inquiry based learning model on students': (1) learning outcome (F=6.58 ; P=0.002); (2) critical thinking skill (F=26.88 ; P=0.000); and (3) science process skill (F= 6.54 ; P= 0.002). Students' learning outcome that were taught by guided inquiry based learning model (73.36±11.443) not different significant with modified free inquiry based learning model (67.27±12.050) (P=0,057), and different very significant with traditional based learning model (64.00±13.561) (P=0,001). Students' critical thinking skill that were taught by guided inquiry based learning model (61.36±16.234) different very significant with modified free inquiry based learning model (72.22±11.237) (P=0,003), and different very significant with traditional based learning model (49.00±17.184) (P=0,000). Students' science process skill that were taught by guided inquiry based learning model (59.14±12.820) not different significant with modified free inquiry based learning model (54.27±13.781) (P=0,194), but different very significant with traditional based learning model (49.09±12.939) (P=0,001). The result of this study is expected from the teachers to apply guided inquiry or modified free inquiry based learning model when they are teaching environmental pollution topic in order to increase students' learning outcome, critical thinking skill, and science process skill.

Key Words: Guided Inquiry, Modified Free Inquiry, Traditional, Learning Outcome, Critical Thinking Skill, Science Process Skill, Environmental Pollution.