

ABSTRAK

Ayyub JW Prayogi. Pengaruh Model Pembelajaran *Guided Discovery* dan *STAD* Terhadap Kemampuan Berpikir Kritis, Keterampilan Proses Sains, dan Sikap Ilmiah Siswa Pada Materi Pencemaran Lingkungan di Kelas X MAPN 4 Medan. *Tesis*. Program Pascasarjana Universitas Negeri Medan, 2019.

Penelitian ini bertujuan untuk mengetahui pengaruh model pembelajaran *Guided Discovery* dan *STAD* terhadap: (1) kemampuan berpikir kritis; (2) keterampilan proses sains; (3) sikap ilmiah siswa di kelas X MAPN 4 Medan. Metode penelitian menggunakan kuasi eksperimen dengan sampel penelitian sebanyak 3 kelas yang ditentukan secara cluster random sampling. Kelas X-1 dibelajarkan dengan model pembelajaran *Guided Discovery*, kelas X-3 dibelajarkan dengan model *STAD* dan kelas X-2 (kontrol) dibelajarkan dengan model pembelajaran tradisional. Instrumen penelitian menggunakan instrument tes hasil kemampuan berpikir kritis, instrument keterampilan proses sains dengan menggunakan tes essay, dan instrument sikap ilmiah siswa dengan menggunakan angket. Kemampuan berpikir kritis, keterampilan proses sains dan sikap ilmiah dianalisis teknik analisis Anava pada taraf signifikan $\alpha = 0,05$ dengan bantuan SPSS 21,0. Hasil penelitian menunjukkan bahwa: (1) Ada pengaruh yang signifikan model pembelajaran *Guided Discovery*, *STAD* dan tradisional terhadap kemampuan berpikir kritis siswa ($F= 3,806$; $P= 0,025$). (2) Ada pengaruh yang signifikan model pembelajaran *Guided Discovery*, *STAD* dan tradisional terhadap keterampilan proses sains ($F= 16,576$; $P= 0,000$). (3) ada pengaruh yang signifikan model pembelajaran *Guided Discovery*, *STAD* dan tradisional terhadap sikap ilmiah siswa ($F= 26,865$; $P= 0,000$). Sebagai tindak lanjut dari hasil penelitian ini diharapkan kepada guru untuk dapat menerapkan model pembelajaran *Guided Discovery* dan *STAD* pada materi pencemaran lingkungan dalam upaya meningkatkan hasil kemampuan berpikir kritis, keterampilan proses sains dan sikap ilmiah siswa.

Kata kunci: *Pembelajaran Guided Discovery, STAD, Kemampuan Berpikir Kritis, Keterampilan Proses Sains, Sikap Ilmiah*



ABSTRACT

Ayyub JW Prayogi. The Effect of Guided Discovery and STAD Learning Models on Student's Critical Thinking, Scientific Process Skill and Scientific Attitude on Environmental Pollution Topic in MAPN 4 Medan. A *Thesis*. Biology Education Study Program, Postgraduate Program, Universitas Negeri Medan, 2019.

This study aimed to determine the effect of Guided Discovery and STAD learning models on students: (1) critical thinking skill; (2) scientific process skill; (3) scientific attitude of students in grade X of MAPN 4 Medan. The research method used was quasi-experimental with a sample of 3 classes determined by cluster random sampling. X-1 class was taught by Guided Discovery learning model, class X-3 was taught by STAD learning model and class X-2 (control) was taught by traditional learning model. The research instrument used was a test instrument for the results of critical thinking skill and scientific process skill in the form of essay tests. The data analysis technique used was Anova Analysis at a significance level of $\alpha = 0.05$ by using SPSS 21.0. The results showed: (1) there was a significant effect of Guided Discovery, STAD and traditional learning models on students critical thinking skill ($F = 3,806$; $P = 0,025$). (2) there was a significant effect of Guided Discovery, STAD and traditional learning models on scientific process skill ($F = 16,576$; $P = 0,000$). (3) there was a significant effect of Guided Discovery, STAD and traditional learning models on the scientific attitude ($F = 26,865$; $P = 0,000$). As a follow-up of the results of this study it was expected that teachers can apply Guided Discovery and STAD learning models to environmental pollution topic in an effort to improve the results of students' critical thinking skill, scientific process skill and scientific attitude.

Keywords: *Guided Discovery; STAD; Critical Thinking Skill; Scientific Process Skill, Scientific Attitude.*

