

## ABSTRAK

**Anni Angkat:** Pengaruh Strategi Pembelajaran Terhadap Keterampilan Proses Sains, Sikap Ilmiah, dan Hasil Belajar Siswa Tentang Ekologi di SMK Negeri 1 Penanggalan Kota Subulussalam. Tesis. Program Pascasarjana Universitas Negeri Medan (UNIMED). 2012.

Penelitian ini bertujuan untuk mengetahui pengaruh strategi pembelajaran terhadap: (1) keterampilan proses sains, (2) sikap ilmiah dan (3) hasil belajar siswa pada materi ekologi di kelas XII SMK Negeri 1 Penanggalan Kota Subulussalam. Metode penelitian menggunakan *kuasi eksperimen* dengan sampel penelitian sebanyak 3 kelas ditentukan secara acak dengan teknik *cluster random sampling*. Kelas A dibelajarkan dengan strategi pembelajaran *problem based learning*, kelas B dengan strategi pembelajaran *group investigation*, sedangkan kelas C (control) dengan strategi pembelajaran tradisional. Instrumen penelitian menggunakan tes keterampilan proses sains dalam bentuk uraian, lembar observasi keterampilan proses sains, angket sikap ilmiah, dan tes hasil belajar dalam bentuk pilihan ganda. Teknik analisis data menggunakan Analisis Kovariat (ANACOVA) pada taraf signifikansi  $\alpha = 0,05$  dengan bantuan SPSS 19.0.

Hasil penelitian menunjukkan: (1) ada pengaruh yang signifikan strategi pembelajaran terhadap keterampilan proses sains ( $F= 48,55$ ;  $P=0,00$ ). Keterampilan proses sains siswa yang dibelajarkan dengan strategi *problem based learning* (PBL) ( $79,19 \pm 7,84$ ) secara signifikan lebih tinggi dibandingkan dengan strategi *group investigation* ( $73,19 \pm 7,31$ ), maupun strategi tradisional ( $60,35 \pm 5,30$ ); (2) ada pengaruh yang signifikan strategi pembelajaran terhadap sikap ilmiah siswa ( $F= 31, 208$ ;  $P=0,00$ ). Sikap ilmiah siswa yang dibelajarkan dengan strategi *problem based learning* (PBL) ( $77,38 \pm 5,95$ ) secara signifikan lebih tinggi dibandingkan dengan strategi *group investigation* ( $75,31 \pm 6,98$ ), maupun strategi tradisional ( $65,38 \pm 7,32$ ); (3) ada pengaruh yang signifikan strategi pembelajaran terhadap hasil belajar siswa ( $F= 60,18$ ;  $P=0,00$ ). Hasil belajar siswa yang dibelajarkan dengan strategi *problem based learning* (PBL) ( $75,15 \pm 8,07$ ) secara signifikan lebih tinggi dibandingkan strategi *group investigation* ( $64,88 \pm 8,20$ ), maupun strategi tradisional ( $59,88 \pm 8,45$ ). Sebagai tindak lanjut dari hasil penelitian ini diharapkan kepada guru untuk dapat menerapkan strategi *problem based learning* (PBL) pada materi ekologi dalam upaya meningkatkan keterampilan proses sains, sikap ilmiah dan hasil belajar siswa.

**Kata Kunci:** Keterampilan Proses Sains, Sikap Ilmiah, Hasil Belajar. Strategi *Problem Based Learning*, *group Investigation*, Pembelajaran Tradisional.

## ABSTRACT

**Anni Angakat:** The Influence of Learning Strategy on Science Process Skills, Scientific Attitude, and Student's Learning Achievement in Ecology Topic in SMK Negeri 1 Penanggalan Kota Subulussalam. A Thesis. Biology Study Program. Post Graduate School. State University of Medan. 2012

This study aims to know the influence of learning strategy on: (1) science process skill, (2) scientific attitude and (3) learning achievement in ecology topic in the twelfth class of SMK Negeri 1 Penanggalan Kota Subulussalam. The research applied experimental queasy method research 3 classes which were choosen by using cluster random technique. Class A learnt with *problem based learning*, class B with *group investigation* learning strategy, while class C (control) learnt with traditional learning strategy. The research instruments were the test of science process skills in essay form, the observation sheets of science process skill, the questionnaire of scientific attitude, and learning achievement test in multiple choice. The data analysis technique used Covariat Analysis (ANACOVA) at the level of significance  $\alpha=0.05$  by using SPSS 19.0.

Research result showed: (1) there was significant effect of learning strategy on students' science process ( $F=48.55$ ;  $P= 0.00$ ). Student's science process skills learnt by *problem based learning* (PBL) ( $79.19\pm7.84$ ) significantly higher than *group investigation* ( $73.19\pm7.31$ ) and traditional learning strategy ( $60.35\pm5.30$ ); (2) there was significant effect of learning strategy on the students' scientific attitude ( $F=31.21$ ;  $P= 0.00$ ). The Student's scientific attitudel learnt by *problem based learning* strategy (PBL) ( $77.38\pm5.95$ ) significantly higher than *group investigation* ( $75.31\pm6.98$ ) and traditional learning strategy ( $65.38\pm7.32$ ); (3) there was significant effect of learning strategy on the students' ( $F=60.18$ ;  $P= 0.00$ ). The Student's achievement learnt by *problem based learning* strategy (PBL) ( $75.15\pm8.07$ ) significantly higher than *group investigation* ( $64.88\pm8.20$ ) and traditional learning strategy ( $59.88\pm8.45$ ). As the follow up of these research results, it is expected to the teachers to be able to conduct *problem based learning* strategy (PBL) in ecology topic as the effort to improve the students' science process skill, scientific attitude and achievement.

Key words : Science Process Skills, Scientific Attitude, Learning Achievement, *Problem Based Learning* Strategy, *Group Investigation* Learning Strategy, Traditional Learning.