

## ABSTRAK

**Iskandar Dinata Ginting** : Pengaruh Strategi Pembelajaran Problem Based Learning (PBL) dan Group Investigation (GI) terhadap Keterampilan Proses Sains, Sikap Ilmiah dan Hasil Belajar Siswa Tentang Ekologi di MAN Kabanjahe. Tesis. Program Pascasarjana Universitas Negeri Medan (UNIMED). 2016.

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 X di MAN Kabanjahe. Metode penelitian menggunakan kuasi eksperimen dengan sampel penelitian sebanyak 3 kelas ditentukan secara acak dengan teknik clutser random sampling. Kelas A dibelajarkan dengan strategi pembelajaran *Problem Based Learning*, kelas B dengan strategi pembelajaran *Group Investigation*, sedangkan kelas C (Kontrol) dengan strategi pembelajaran konvensional. Instrumen penelitian menggunakan tes keterampilan proses sains dalam bentuk uraian lembar observasi keterampilan proses sains angket sikap ilmiah, dan tes hasil belajar dalam bentuk essay tes. Teknik analisis data menggunakan Analisis Covariat (ANACOVA) pada taraf signifikan  $\alpha = 0,05$  dengan bantuan SPSS 24.0

Hasil penelitian menunjukkan (1) ada pengaruh signifikan strategi pembelajaran terhadap keterampilan proses sains ( $F = 9,229$ ;  $P = 0,000$ ). Keterampilan Proses Sains Siswa yang dibelajarkan dengan strategi *Problem Based Learning* (PBL) ( $89,23 \pm 5,001$ ) secara signifikan lebih tinggi dibandingkan dengan strategi *Group Investigation* (GI) ( $88,31 \pm 4,368$ ) maupun strategi konvensional ( $84,46 \pm 3,625$ ); (2) ada pengaruh yang signifikan strategi pembelajaran terhadap sikap ilmiah siswa ( $F = 41,383$ ;  $P = 0,000$ ). Sikap ilmiah siswa yang dibelajarkan dengan strategi *Problem Based Learning* (PBL) ( $91,29 \pm 3,426$ ) secara signifikan lebih tinggi dibandingkan dengan strategi *Group Investigation* (GI) ( $88,00 \pm 5,581$ ) maupun strategi konvensional ( $81,85 \pm 2,344$ ); (3) ada pengaruh yang signifikan strategi pembelajaran terhadap hasil belajar siswa ( $F = 25,005$ ;  $P = 0,000$ ). Hasil belajar siswa yang dibelajarkan dengan strategi *Problem Based Learning* (PBL) ( $90,26 \pm 4,039$ ) secara signifikan lebih tinggi dibandingkan dengan strategi *Group Investigation* (GI) ( $88,28 \pm 3,731$ ) maupun strategi konvensional ( $83,96 \pm 2,010$ ). 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* dan Pembelajaran Konvensional.

## ABSTRACT

**Iskandar Dinata Ginting** : Influence of Learning Strategies Problem Based Learning (PBL) and Group Investigation (GI) of the Science Process Skills, Scientific Attitude and Learning Outcomes Students About Ecology at MAN Kabanjahe. Thesis. Graduate Program of University of Medan (UNIMED). 2016.

This study aims to determine the effect of the learning strategies: (1) The science process skills, (2) the scientific attitude and (3) the results of students in ecological materials in class X MAN Kabanjahe. The research method using a quasi-experimental samples are 3 classes were randomly assigned to cluster random sampling technique. Class A are teaching with learning strategies Problem Based Learning, class B with Group Investigation learning strategies, while class C (control) with conventional learning strategies. The research instrument using science process skills test in the form description science process skills of observation sheet questionnaires scientific attitude, and achievement test in the form of essay test. Data were analyzed using analysis Covariat (ANACOVA) at significance level  $\alpha = 0.05$  using *SPSS 24.0*

The results showed (1) significant effect on the learning strategies science process skills ( $F = 9.229$ ;  $P = 0.000$ ). Science Process Skills Students that learned with the strategy of Problem Based Learning (PBL) ( $89.23 \pm 5,001$ ) was significantly higher than the Group's strategy of Investigation (GI) ( $88.31 \pm 4,368$ ) as well as conventional strategy ( $84.46 \pm 3.625$ ); (2) there was a significant effect of learning strategies to the scientific attitude of students ( $F = 41.383$ ;  $P = 0.000$ ). Scientific attitude of students that learned with the strategy of Problem Based Learning (PBL) ( $91.29 \pm 3.426$ ) was significantly higher than the Group's strategy of Investigation (GI) ( $88.00 \pm 5.581$ ) as well as conventional strategy ( $81.85 \pm 2.344$ ); (3) No significant influence learning strategy on learning outcomes of students ( $F = 25.005$ ;  $P = 0.000$ ). Student learning outcomes that learned with the strategy of Problem Based Learning (PBL) ( $90.26 \pm 4.039$ ) was significantly higher than the Group's strategy of Investigation (GI) ( $88.28 \pm 3.731$ ) as well as conventional strategy ( $83.96 \pm 2.010$ ). As a follow up of the results of this study are expected teachers to be able to implement a strategy of Problem Based Learning (PBL) on ecological materials in an effort to improve science process skills, scientific attitudes and student learning outcomes.

Keywords : Science Process Skills, Scientific Attitude, Learning Outcomes, Strategies Problem Based Learning, the Learning Group Investigation and Conventional.