

ABSTRAK

Fenny Mustika Piliang: Pengaruh Model Pembelajaran Berbasis Proyek dalam Tatanan *Group Investigation* pada Matakuliah Ekologi Hewan terhadap Sikap Sosial, Berpikir Tingkat Tinggi dan Keterampilan Proses Sains Mahasiswa USI Pematangsiantar. Tesis. Program Pascasarjana Universitas Negeri Medan (UNIMED). Medan. 2015.

Penelitian ini bertujuan untuk mengetahui pengaruh model pembelajaran berbasis proyek dalam tatanan *Group Investigation* dan konvensional terhadap: (1) Sikap Sosial; (2) Berpikir Tingkat Tinggi; dan (3) Keterampilan Proses Sains Mahasiswa USI Pematangsiantar. Sampel diambil secara *total sampling* yaitu seluruh mahasiswa semester VI. Jumlah sampel sebanyak 60 orang yang dikelompokkan ke dalam kelompok eksperimen dengan model pembelajaran berbasis proyek dalam tatanan *Group Investigation*, kelompok eksperimen dengan model pembelajaran *Group Investigation*, dan kelompok kontrol dengan model pembelajaran konvensional. Instrumen penelitian berupa tes hasil belajar kemampuan berpikir tingkat tinggi dan keterampilan proses sains, dan lembar observasi sikap sosial dan keterampilan proses sains mahasiswa. Metode penelitian ini bersifat kuasi eksperimen dengan teknik analisis data menggunakan uji F-ANAKOVA pada taraf signifikansi $\alpha = 5\%$ dengan bantuan program SPSS 21.0. Hasil penelitian ini diperoleh bahwa: (1) Sikap sosial mahasiswa yang dibelajarkan dengan pembelajaran berbasis proyek dalam tatanan *Group Investigation* $83,10 \pm 4,52$ secara signifikan lebih tinggi dibandingkan dengan pembelajaran *Group Investigation* $69,80 \pm 4,56$ dan pembelajaran konvensional $63,15 \pm 8,20$ dengan ($F_{hitung}=57,005$; $P=0,000$); (2) Berpikir tingkat tinggi mahasiswa yang dibelajarkan dengan pembelajaran berbasis proyek dalam tatanan *Group Investigation* $88,60 \pm 3,73$ secara signifikan lebih tinggi dibandingkan dengan pembelajaran *Group Investigation* $81,00 \pm 4,01$ dan pembelajaran konvensional $74,60 \pm 3,58$ dengan ($F_{hitung}=67,742$; $P=0,000$); (3) Tes keterampilan proses sains mahasiswa yang dibelajarkan dengan pembelajaran berbasis proyek dalam tatanan *Group Investigation* $87,60 \pm 4,28$ secara signifikan lebih tinggi dibandingkan dengan pembelajaran *Group Investigation* $81,50 \pm 5,77$ dan pembelajaran konvensional $70,40 \pm 4,01$ dengan ($F_{hitung}=63,092$; $P=0,000$). Selanjutnya observasi keterampilan proses sains mahasiswa yang dibelajarkan dengan pembelajaran berbasis proyek dalam tatanan *Group Investigation* $92,85 \pm 4,61$ secara signifikan lebih tinggi dibandingkan dengan pembelajaran *Group Investigation* $77,80 \pm 7,27$ dan pembelajaran konvensional $57,25 \pm 8,69$ dengan ($F_{hitung}=127,856$; $P=0,000$). Dengan demikian, dapat disimpulkan bahwa model pembelajaran berbasis proyek dalam tatanan *Group Investigation* berpengaruh terhadap sikap sosial, berpikir tingkat tinggi dan keterampilan proses sains mahasiswa USI Pematangsiantar.

Kata Kunci: Pembelajaran Berbasis Proyek, *Group Investigation*, Sikap Sosial, Berpikir Tingkat Tinggi, Keterampilan Proses Sains.

ABSTRACT

Fenny Mustika Piliang: The Effects of Group Investigation with Project Based Learning Model towards Social Skills, Higher Order Thinking and Science Process Skills of Animal Ecology for Under-graduated Students of Simalungun University. Thesis. State University of Medan Post Graduated Program. Medan. 2015.

The objectives of this research was to investigate the effects of Group Investigation with Project Based and conventional Learning model towards: (1) Social skills; (2) Higher order thinking; and (3) Science process skills of animal ecology for under-graduated students of Simalungun University. The sample amounted to the total sampling, 60 under-graduated students of Simalungun University in fourth semester. They were grouped as first experimental class treated by Group Investigation combined with PJBL, for the next experimental class taught by Group Investigation and for the control class taught by using the conventional learning model. The higher order thinking and science process skills test and social skill observation sheets and also science process skills questionnaire were the instruments of this research. This study included a quasi-experimental method. The data were analyzed by using the SPSS 21.0 program using F-test (ANACOVA $\alpha = 5\%$). The results showed that: (1) The social skills of under-graduated students of Simalungun University treated by Group Investigation combined with PJBL were significantly 83.10 ± 4.52 than the second experimental class, Group Investigation 69.80 ± 4.56 and conventional class 15 ± 8.20 with ($F_{count}=57.005$; $P=0.000$); (2) The higher order thinking ability of under-graduated students of Simalungun University treated by Group Investigation were significantly 88.60 ± 3.73 than the group investigation class 81.00 ± 4.01 and conventional class 74.60 ± 3.58 with ($F_{count}=67.742$; $P=0.000$); (3) The under-graduated students' science process skills in the first experimental class design were also significantly compared with 87.60 ± 4.28 compared with the group investigation class 81.50 ± 5.77 and conventional class 70.40 ± 4.01 with $F_{count}=63.092$; $P=0.000$. Furthermore, the observation results of science process skills of the first class were also significantly 92.85 ± 4.61 compared with the second class 77.80 ± 7.27 and the third class 57.25 ± 8.69 with ($F_{count}=127.856$; $P=0.000$). Therefore, it can be concluded that Group Investigation combined with PJBL affected the students' social skills, higher order thinking abilities and science process skills.

Keyword: Project Based Learning, Group Investigation, Social Skills, Higher Order Thinking and Science Process Skills.