

ABSTRAK

AHMAD FAUZI. Pengaruh Model Pembelajaran Inkuiri dan *Group Investigation* Terhadap Kemampuan Kognitif, Kemampuan Berpikir Kritis dan Keterampilan Proses Sains Siswa pada Materi Ekosistem di SMA Bhayangkari 1 Medan. Tesis. Program Pascasarjana Universitas Negeri Medan. 2019.

Penelitian ini bertujuan untuk mengetahui pengaruh model pembelajaran terhadap: (1) Kemampuan kognitif; (2) Kemampuan berpikir kritis; dan (3) Keterampilan proses sains siswa pada materi Ekosistem di SMA Bhayangkari 1 Medan. Metode yang digunakan adalah *quasi experiment research* dengan sampel sebanyak 3 kelas yang ditentukan secara acak menggunakan teknik *cluster random sampling*. Siswa kelas X₁ dibelajarkan dengan model pembelajaran Inkuiri, kelas X₂ dibelajarkan dengan *Group Investigation*, dan kelas X₃ dengan Konvensional. Instrumen tes dalam penelitian ini adalah tes kemampuan kognitif dan kemampuan berpikir kritis dalam bentuk pilihan ganda, tes keterampilan proses sains dalam bentuk esai tes. Teknik analisis data menggunakan *Anacova* dengan program *SPSS 21.0*. Hasil penelitian diperoleh bahwa terdapat pengaruh model pembelajaran terhadap: (1) Kemampuan kognitif siswa ($F=5,14$; $P=0,01$); (2) Kemampuan berpikir kritis siswa ($F=63,49$; $P=0,00$); dan (3) Keterampilan proses sains siswa ($F=13,88$; $P=0,00$). Kemampuan kognitif siswa yang dibelajarkan dengan model pembelajaran inkuiri ($73,75 \pm 13,60$) tidak berbeda signifikan dengan *Group Investigation* ($77,21 \pm 10,69$) ($P=0,47$) dan tidak berbeda signifikan yang dibelajarkan dengan Konvensional ($67,71 \pm 11,43$) ($P=0,10$). Kemampuan berpikir kritis siswa yang dibelajarkan dengan model pembelajaran inkuiri ($72,40 \pm 8,77$) berbeda signifikan dengan *Group Investigation* ($79,80 \pm 7,01$) ($P=0,00$), dan tidak berbeda signifikan dengan yang dibelajarkan menggunakan Konvensional ($68,76 \pm 66,21$) ($P=0,12$). Keterampilan proses sains siswa yang dibelajarkan dengan model pembelajaran Inkuiri ($76,33 \pm 8,47$) tidak berbeda signifikan dengan *Group Investigation* ($78,90 \pm 7,77$) ($P=0,42$) dan tidak berbeda signifikan yang dibelajarkan dengan Konvensional ($71,64 \pm 8,51$) ($P=0,06$). Tindak lanjut dari hasil penelitian ini diharapkan kepada guru untuk dapat menerapkan model pembelajaran Inkuiri dan *Group Investigation* pada materi Ekosistem dalam upaya meningkatkan kemampuan Kognitif, Kemampuan Berpikir Kritis, dan Keterampilan Proses Sains siswa di sekolah.

Kata Kunci: Inkuiri, Group Investigation, Konvensional, Kemampuan Kognitif, Kemampuan Berpikir Kritis, Keterampilan Proses Sains, Ekosistem.

ABSTRACT

AHMAD FAUZI. The Effect of Inquiry Learning Model and Group Investigation Learning Model on Students' Cognitive Skill, Critical Thinking Skill and Scientific Process Skill in the Ecosystem Topic at SMA Bhayangkari 1 Medan. A Thesis. Postgraduate Program of Universitas Negeri Medan. 2019.

This study aimed to determine the effect of learning models on students': (1) Cognitive skill; (2) Critical thinking skill; and (3) Scientific process skill in the Ecosystem topic at SMA Bhayangkari 1 Medan. The method used is quasi experiment research with a sample of 3 classes randomly determined using cluster random sampling technique. X₁ class was taught by Inquiry Learning model, X₂ class was taught by Group Investigation Learning model, and X₃ class was taught by Conventional model. The test instruments in this study were tests of cognitive skill and critical thinking skills in the form of multiple choices, tests of scientific process skill in the form of essay tests. The data analysis technique used ANACOVA with SPSS 21.0 for Windows program. The results of the study showed that there were influences of learning models on: (1) students' cognitive skill (F=5,14 ; P=0,01); (2) students' critical thinking skill (F=63,49 ; P=0,00); and (3) students' scientific process skill (F=13,88 ; P=0,00). The students' cognitive skill who were taught with Inquiry Learning model (73.75 ± 13.60) were not significantly different with Group Investigation Learning Model (77,21±10,69) (P=0,47), and not significantly different from those taught in Conventional model (67.71 ± 11.43) (P = 0.10). The students' critical thinking skills were taught by the Inquiry Learning model (72.40 ± 8.77) differed significantly from those taught in Group Investigation Learning model (79.80 ± 7.01) (P = 0.00), and were not significantly different from those taught by Conventional model (68.76 ± 66.21) (P = 0.12). The students' scientific process skill who were taught by Inquiry Learning model (76,33±8,47) were not significantly different with Group Investigation Learning Model (78,90±7,77) (P=0,42), and not significantly different from those taught in Conventional model (71,64±8,51) (P=0,06). The follow-up of the results of this study was expected to teachers to be able to apply Inquiry learning model and Group Investigation learning model to Ecosystem topic in an effort to improve Cognitive Skill, Critical Thinking Skill and Scientific Process Skill of students at the schools.

Key Words: Inquiry, Group Investigation, Conventional, Cognitive Skill, Critical Thinking Skill, Scientific Process Skill, Ecosystem.