

Penerapan Model Pembelajaran *Discovery Learning* Menggunakan Pembelajaran IPA Terpadu Tipe *Shared* dan *Webbed* pada Materi Pemanasan Global untuk Meningkatkan Penguasaan Konsep dan Keterampilan Proses Sains Peserta Didik SMP

ABSTRAK

Penelitian ini bertujuan untuk menganalisis peningkatan penguasaan konsep dan keterampilan proses sains (KPS) peserta didik melalui penerapan model pembelajaran *discovery learning* dengan menggunakan pembelajaran keterpaduan tipe *shared* dan *webbed* pada materi Pemanasan Global. Metode penelitian yang digunakan adalah *Quasi Experiment* dengan desain *The Matching-Only Pretest-Posttest Control Group Design* yang dilaksanakan di salah satu SMP negeri di Kabupaten Bulungan, Kalimantan Utara, kelas VII tahun pelajaran 2014/2015. Instrumen penelitian yang digunakan adalah tes penguasaan konsep dan tes KPS berbentuk tes tertulis jenis pilihan ganda, lembar observasi keterlaksanaan pembelajaran bagi guru dan peserta didik, lembar keterlaksanaan KPS bagi peserta didik, serta angket tanggapan guru dan peserta didik. Hasil penelitian menunjukkan terdapat perbedaan yang signifikan antara penggunaan model pembelajaran *discovery learning* tipe keterpaduan *shared* dengan tipe keterpaduan *webbed* untuk meningkatkan penguasaan konsep peserta didik berdasarkan nilai $t_{hitung} = -2,965$ yang berada di luar daerah penerimaan $t_{tabel} = \pm 2,014$ dengan nilai signifikansi 0,005. Rerata *N-Gain* penguasaan konsep peserta didik kelas keterpaduan *shared* 0,58 dengan kriteria sedang dan kelas keterpaduan *webbed* 0,39 dengan kriteria sedang. Hasil lainnya menunjukkan tidak terdapat perbedaan yang signifikan antara penggunaan model pembelajaran *discovery learning* tipe keterpaduan *shared* dengan tipe keterpaduan *webbed* untuk meningkatkan keterampilan proses sains peserta didik berdasarkan nilai $t_{hitung} = -1,537$ yang berada pada daerah penerimaan $t_{tabel} = \pm 2,014$ dengan nilai signifikansi 0,131. Rerata *N-Gain* keterampilan proses sains peserta didik kelas keterpaduan *shared* 0,55 dengan kriteria sedang dan kelas keterpaduan *webbed* 0,47 dengan kriteria sedang. Hasil angket tanggapan guru dan peserta didik memberikan tanggapan baik terhadap model pembelajaran.

Kata Kunci: *Discovery Learning, Penguasaan Konsep, Keterampilan Proses Sains, Keterpaduan Shared, Keterpaduan Webbed.*

The Implementation of Discovery Learning Model Using Integrated Natural Science Instruction of Shared and Webbed Types on the Topic of Global Warming to Improve Junior High School Students' Concept Mastery and Science Process Skills

ABSTRACT

The research aims to analyze the improvement of students' concept mastery and science process skills through the implementation of discovery learning using integrated instruction of shared and webbed types on the topic of Global Warming. The method adopted was quasi experiment with the matching-only pretest-posttest control group design, conducted in one of the state junior high schools in Bulungan Regency, North Kalimantan, more specifically in the seventh-grade class for the school year of 2014/2015. The research instruments employed consisted of written tests of concept mastery and science process skills in the forms of multiple choice questions, observation sheets of the implementation of instruction for teachers and students, observation sheets for the implementation of science process skills for students, and response questionnaires for teachers and students. Research results show that there was significant difference between the use of discovery learning model of shared and webbed types in improving students' concept mastery based on the value of $t_{\text{count}} = -2.965$, outside the acceptable range listed in $t_{\text{table}} = \pm 2.014$, with a significance value of 0.005. The mean N-Gain scores for students' concept mastery in the shared-integrated and webbed-integrated classes were 0.58 and 0.39, respectively, which were both categorized as moderate. Further results demonstrate that there was no significant difference in the use of discovery learning of shared-integrated and webbed-integrated types in improving students' science process skills, based on $t_{\text{count}} = -1.537$, outside the acceptable range listed in $t_{\text{table}} = \pm 2.014$, with a significance value of 0.131. The mean N-Gain scores for students' science process skills in shared-integrated and webbed-integrated classes were 0.55 and 0.47, respectively, which were both categorized as moderate. In addition, results of teachers' and students' response questionnaires reveal good responses to the learning model.

Keywords: *Discovery Learning, Concept Mastery, Science Process Skills, Shared-Integrated, Webbed-Integrated.*