

Penerapan Strategi Pembelajaran Berbasis Inkuiri untuk Meningkatkan Keterampilan Berpikir Kritis dan Penguasaan Konsep Siswa pada Sistem Peredaran Darah

ABSTRAK

Penelitian ini berawal dari permasalahan pada pembelajaran IPA yang cenderung “*content transmission*” dan “*teacher center*”. Pembelajaran demikian mengakibatkan proses penalaran siswa menjadi terbatas. Hal itu mendorong dilakukan penelitian dengan tujuan meningkatkan keterampilan berpikir kritis dan penguasaan konsep, serta mengetahui korelasi ke duanya. Selanjutnya disusun rancangan penelitian strategi pembelajaran berbasis inkuiri untuk meningkatkan keterampilan berpikir kritis dan penguasaan konsep siswa pada sistem peredaran darah. Metode penelitian yang digunakan adalah kuasi eksperimen dengan desain penelitian *pretest- posttest control group design*. Subyek penelitian adalah siswa kelas VIII salah satu SMPN di kota Cimahi, sebanyak 26 siswa kelas eksperimen dan 27 siswa kelas kontrol. Instrumen penelitian berupa soal tes tertulis pilihan ganda beralasan dan kuesioner. Hasil analisis uji hipotesis diperoleh kemampuan berpikir kritis kelompok eksperimen lebih baik dari pada kelompok kontrol setelah pembelajaran, demikian pula untuk penguasaan konsep. Hasil uji korelasi diperoleh hubungan yang sangat tinggi antara keterampilan berpikir kritis dengan penguasaan konsep ($r = 0,877$). Hasil uji regresi diperoleh keterampilan berpikir kritis siswa signifikan dalam memprediksi penguasaan konsep ($r^2 = 76,9$). Dengan demikian pembelajaran inkuiri sangat efektif dalam peningkatan keterampilan berpikir kritis dan penguasaan konsep, dan keterampilan berpikir kritis dapat menjadi penentu terhadap penguasaan konsep.

Kata kunci : pembelajaran berbasis inkuiri, berpikir kritis, penguasaan konsep, sistem peredaran darah.

The Application of Teaching and Learning based on Inquiry Strategy to Improve The Critical Thinking Skill and Students' Conceptual Achievement on Blood Circulation System

ABSTRACT

This research was started from science's teaching and learning process which inclined to content transmission and teacher-centered condition. This approach has led to students' limitation of intellectual activity process. Since the problem had brought to the process of researching, it was planned as a tool to improve the students' critical thinking skill and students' conceptual achievement included the correlation between them. Furthermore this research designed inquiry based learning strategy to improve the students' critical thinking skill and students' conceptual achievement on blood circulation system. The research method which used was quassy experimental with – pretest and posttest control group design. The subject of research plan was Junior High School students grade VIII in Cimahi. There were 26 students in the experimental group and 27 students in the controlled group. This research used multiple choice questions as written test instruments and questionairs. The result of hypothesis analysis gained from students' thinking skill in experimental group have got better scores than controlled group students' scores. They were similar with students' conceptual achievement. The correlation test result described very high scores between students' critical thinking and students' conceptual achievement ($r = 0,877$). Whereas the regression test result shown that there was significant level of students' critical thinking skill to predict conceptual achievement ($r^2 = 76,9$). Based on the result, inquiry strategy was very effective to improve students' critical thinking skill and conceptual achievement. The critical thinking skill could also be a good determinant toward students' conceptual achievement.

Keywords: Teaching and learning based on inquiry, critical thinking, conceptual achievement, blood circulation system.