

## ABSTRAK

Pengembangan Keterampilan Berpikir Logis dan Berpikir Kritis Siswa Melalui Pembelajaran Inkuiri Terbimbing pada Materi Sistem Koloid. **Siti Solihah. Pendidikan Ilmu Pengetahuan Alam. (2013)**

Penelitian ini bertujuan untuk mengembangkan keterampilan berpikir logis dan berpikir kritis siswa melalui pembelajaran inkuiri terbimbing pada materi sistem koloid. Keterampilan berpikir logis diukur dalam lima jenis penalaran, yaitu: penalaran proporsional, pengontrolan variabel, penalaran probabilitas, penalaran korelasional dan penalaran kombinatorial. Sementara itu, kemampuan berpikir kritis diukur melalui sembilan subindikator, yaitu mengidentifikasi atau merumuskan pertanyaan, memberikan penjelasan sederhana, memberikan contoh, mengemukakan hipotesis, merancang eksperimen, melaporkan hasil observasi, menarik kesimpulan dari hasil penyelidikan, menerapkan konsep dan mengklasifikasikan. Penelitian ini menggunakan metode kuasi eksperimen dan melibatkan 79 siswa kelas XI di salah satu SMA negeri di Kota Bandung. Data dikumpulkan melalui tes tertulis keterampilan berpikir logis dan berpikir kritis, LKS, dan lembar observasi. Hasil penelitian menunjukkan bahwa tahapan pembelajaran inkuiri terbimbing dapat terlaksana dengan baik. Peningkatan kemampuan berpikir logis siswa kelas eksperimen berbeda secara signifikan dari kelas kontrol. Pada sebagian besar jenis penalaran, keterampilan berpikir logis siswa kelas eksperimen lebih tinggi dibandingkan kelas kontrol. Peningkatan keterampilan berpikir kritis siswa kelas eksperimen juga berbeda secara signifikan dari kelas kontrol. Pada sebagian subindikator, peningkatan berpikir kritis siswa kelas eksperimen lebih tinggi dibandingkan kelas kontrol. Berdasarkan hasil yang diperoleh, dapat disimpulkan bahwa keterampilan berpikir logis dan berpikir kritis siswa dapat ditingkatkan melalui pembelajaran inkuiri. Hasil penelitian ini dapat berkontribusi dalam pengembangan pembelajaran yang dapat meningkatkan berpikir logis dan berpikir kritis siswa.

Kata kunci: keterampilan berpikir logis, keterampilan berpikir kritis, pembelajaran inkuiri terbimbing, sistem koloid

## ABSTRACT

The Development of Students' Logical and Critical Thinking Skills Through Guided-Inquiry Learning of Colloid System. **Siti Solihah. Science Education. (2013)**

The purpose of this research is to develop students' logical and critical thinking skills through guided-inquiry learning of Colloid System. Logical thinking skills were measured in five reasoning type, those are proportional reasoning, variable controlling, probability reasoning, correlational reasoning and combinatorial reasoning. Meanwhile, critical thinking skills were measured for nine sub-indicators, those are to identify or to formulate question, to give simple reason, to give example, to hypothesize, to design experiment, to report observation result, to draw conclusion out investigation result, to apply concept, and to classify. This research used quasi-experimental design and involved 79 eleventh grade students in one of state senior high school in Bandung. Data were collected through logical and critical thinking written test, students' worksheet (LKS), and observation sheet. The result showed that the stages of guided-inquiry learning were conducted properly. The improvement of students' logical thinking skills in experiment class is significantly different than that of control class. For most of reasoning skills, students' logical thinking skills in experiment class were higher than those of control class. The improvement of students' critical thinking skills in experiment class was higher than that of control class. In several sub-indicators, the improvement of students' critical thinking in experiment class was higher than that of control class. Based on this result, it can be concluded that students' logical and critical thinking skills can be improved through guided-inquiry learning. The result of this research could contribute in the development of learning which seek to improve students' logical and thinking skills.

Keywords: *Logical thinking skills, critical thinking skills, guided-inquiry learning, colloid system*

