

ABSTRAK

PUSPANINGTYAS, KHAIRENI: Pengaruh Penerapan Model Inkuiri Terbimbing Terhadap Kemampuan Analisis dan Keterampilan Proses Sains Siswa SMA. Tesis. Yogyakarta: Program Pascasarjana, Universitas Negeri Yogyakarta. 2014.

Penelitian ini bertujuan untuk mengetahui adanya pengaruh penerapan model inkuiri terbimbing dalam pembelajaran fisika terhadap: (1) kemampuan analisis, dan (2) keterampilan proses sains siswa kelas X SMA Negeri 1 Parakan

Jenis penelitian ini adalah *quasi experiment* dengan desain *pretest-posttest control design*. Populasi penelitian ini adalah seluruh siswa kelas X SMA Negeri 1 Parakan pada semester kedua tahun ajaran 2013/2014. Sampel dipilih menggunakan teknik *cluster random sampling*, sehingga didapat dua kelas sebagai sampel penelitian. Kelompok eksperimen diberi perlakuan berupa penerapan model inkuiri terbimbing dan kelompok kontrol diberi perlakuan berupa penerapan model ekspositori. Teknik pengumpulan data yang digunakan adalah teknik tes dan teknik observasi. Teknik tes digunakan untuk mengetahui kemampuan analisis siswa sebelum dan sesudah perlakuan. Aspek kemampuan yang dinilai yaitu kemampuan analisis unsur, kemampuan analisis hubungan dan kemampuan analisis prinsip-prinsip organisasi. Teknik Observasi digunakan untuk mengetahui keterampilan proses sains siswa selama pembelajaran. Aspek keterampilan proses yang diteliti yaitu, merumuskan hipotesis, melakukan eksperimen, mengukur (menggunakan peralatan), mengamati, menulis data eksperimen, menganalisis data eksperimen, membuat grafik/diagram hasil eksperimen, membuat kesimpulan eksperimen dan mengkomunikasikan hasil eksperimen. Teknik analisis data yang digunakan adalah uji multivariat (MANOVA).

Hasil penelitian ini menunjukkan bahwa terdapat pengaruh penerapan model inkuiri terbimbing dalam pembelajaran fisika terhadap: (1) kemampuan analisis dan (2) keterampilan proses sains siswa kelas X SMA Negeri 1 Parakan. Kemampuan analisis dan keterampilan proses sains siswa pada kelas dengan menerapkan model inkuiri terbimbing lebih baik dari pada kelas dengan menerapkan model ekspositori.

Kata Kunci: *model inkuiri terbimbing, kemampuan analisis, keterampilan proses sains*

ABSTRACT

PUSPANINGTYAS, KHAIRENI: *The Effects of Guided Inquiry Learning Model on the Analytical Skills and Science Process Skills of Student in Senior High School. Thesis. Yogyakarta: Graduate School, Yogyakarta State University. 2014*

This study aims to investigate the effect of application of guided inquiry model in physics learning on: (1) analytical skills, and (2) science process skills of 10th grade students in SMA Negeri 1 Parakan

This research was a quasi-experiment with a pretest-posttest control design. The population was all students in class X SMA Negeri 1 Parakan in the second semester of the academic year 2013/2014. The sample was selected using random cluster sampling technique, in order to get two classes as research samples. The experimental group was given treatment in the form of application guided inquiry models and the control group was treated in the form of expository model. The data were collected through tests and observation. The test was used to determine the analytical skills of students before and after treatment. The aspect of analytical skill which was assessed is analysis of element, analysis of relationship and analysis of organizational principles. The observation technique was used to determine the students's process science skills during the learning process. The aspects of the science process skills were constructing hypotheses, experiments, measuring (using equipment), observing, writing experimental data, analyzing experimental data, creating graphs/charts, concluding and communicating. The data were analyzed using the multivariate (MANOVA) test.

The results of this study show that there is a significant effect of application of the guided inquiry model in physics learning on: (1) analytical skills, and (2) science process skills of 10th grade students in SMA Negeri 1 Parakan. Analytical skills and science process skills of students in the class by applying the model of guided inquiry better than the class by applying the model expository.

Keywords: guided inquiry model, analytical skills, science process skills