

KOMPETENSI PEDAGOGIK CALON GURU BIOLOGI DALAM MENERAPKAN PENDEKATAN INKUIRI UNTUK MENGEMBANGKAN KETERAMPILAN PROSES SAINS

(Studi pada Program Latihan Profesi Mahasiswa Jurdik Biologi di SMA)

ABSTRAK

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Penelitian ini bertujuan untuk menganalisis kompetensi pedagogik calon guru biologi (mahasiswa S1) dalam menerapkan pendekatan inkuiri untuk mengembangkan keterampilan proses sains (KPS) di SMA di Bandung. Metode yang digunakan adalah metode deskriptif. Subjek penelitian adalah 3 (tiga) orang mahasiswa yang sedang melaksanakan Program Latihan Profesi (PLP). KPS dijangar melalui lembar observasi KPS dan Tes KPS yang telah divalidasi. Hasil analisis menunjukkan bahwa penerapan pendekatan inkuiri bebas pada konsep pencemaran air, calon guru mampu menjangar 11 indikator KPS melalui lembar observasi dan tes tertulis dengan rerata nilai KPS 73%. Pada konsep system syaraf, calon guru menjangar 6 sub-indikator KPS pada pretes dan post-test. Hasilnya menunjukkan bahwa terdapat peningkatan kemampuan KPS yang signifikan pada akhir pembelajaran dengan pendekatan inkuiri. Pada konsep pencemaran udara dan tanah melalui inkuiri terbimbing, calon guru menggunakan LKS teks dan LKS bergambar untuk menjangar 5 sub-indikator KPS siswa. Hasilnya menunjukkan penggunaan kedua jenis LKS tersebut tidak berbeda signifikan dalam mengembangkan KPS. Kesimpulan dari penelitian ini adalah calon guru telah mampu menerapkan pendekatan inkuiri dalam pembelajaran sebagai bagian dari kompetensi pedagogiknya

Kata kunci: Kompetensi Pedagogik, Calon Guru Biologi, Pendekatan inkuiri, Keterampilan Proses Sains.

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PEDAGOGICAL COMPETENCE OF PRE-SERVICE BIOLOGY TEACHER
ON CONDUCTING INQUIRY APPROACH TO DEVELOP
SCIENCE PROCESS SKILL
(Study on Profession Practice Program at High Schools in Bandung)

ABSTRACT

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The aim of this study is to analyze the pedagogical competences of pre-service biology teachers on conducting inquiry approach to develop science process skill at high schools by using descriptive methods. The subjects were three S-1 biology pre-service teachers during their teaching practice program in 2 high schools. The topics they taught were: (1) Water pollution, (2) Nervous system, and (3) Air and soil pollution. Using free inquiry approach, the science process skills of the 1st topic were taken through observation sheet and written test. The result showed that she was able to evaluate 11 indicators of science process skill, and the students' average were 81,43% by observation sheet and 73% by written test. The 2nd topic was taught through guided inquiry approach. The science process skill was evaluated by essay test, the students' average were 70,44 % on post-test and 25,85% on pre test. The improvement is quite high but the N-gain is 0,48. The 3rd topic was taught through guided inquiry approach, using pictorial and ordinary practical sheet. The science process skill was taken through essay test, the students' average was not significantly different. The results of this study show that pre-service teacher have been able to conduct inquiry approach as parts of their pedagogic competence.

Key words: Pedagogic competence, Pre-service biology teacher, Inquiry approach, Science process skill

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