ABSTRAK

Analisis Kemampuan Kognitif Dan Kreativitas Peserta Didik Melalui *Problem Based-Learning* Pada Sub Materi Penjernihan Air

Penelitian ini bertujuan untuk memperoleh informasi mengenai penggunaan model pembelajaran *PBL* terhadap peningkatan kemampuan kognitif, dan kreativitas peserta didik pada topik penjernihan air. Metode penelitian yang digunakan adalah kuasi eksperimen *One Group Pretest-Postes Design*, dengan subyek penelitian 31 orang peserta didik kelas XI di salah satu SMK Negeri di Kota Cimahi. Peserta didik dibagi dalam tiga kategori kelompok kemampuan, yaitu: tinggi, sedang dan rendah berdasarkan nilai rata-rata ulangan harian. Aspek keterampilan berpikir kreatif yang dikembangkan meliputi kelancaran, keluwesan, orisinalitas, merinci, dan menilai, sedangkan untuk aspek bertindak kreatif, meliputi tahap persiapan, tahap pelaksanaan, dan tahap akhir. Instrumen yang digunakan adalah tes tertulis pilihan ganda, essay, lembar observasi, angket (skala *Likert)* dan pedoman wawancara. Peningkatan hasil belajar dihitung menggunakan *N-gain*. Hubungan antara peningkatan antar variabel digunakan korelasi *Pearson* dengan taraf signifikansi 0,05. Hasil penelitian menunjukkan bahwa model pembelajaran ini dapat meningkatkan kemampuan kognitif peserta didik kategori sedang (%*N-gain* = 65,18%). Pencapaian dari aspek berpikir kreatif kelancaran (78,43 %, kategori tinggi), keluwesan (74,54%, kategori tinggi), orisinalitas (70,81%, kategori tinggi), merinci (69.93%, kategori sedang), dan menilai (56,90%, kategori sedang). Peningkatan bertindak kreatif tahap persiapan (78,43%), tahap pelaksanaan (84,46%), dan tahap akhir (84,68%). Terdapat hubungan berkategori sedang antara peningkatan kemampuan kognitif dengan keterampilan berpikir kreatif (r = 0,497). Hubungan berpikir kreatif dengan bertindak kreatif terdapat hubungan berkategori kuat (r = 0,626). Produk kreatif yang dihasilkan peserta didik berupa alat penjernihan. Para siswa memberikan tanggapan yang positif terhadap pembelajaran, dan mereka merasa senang serta termotivasi dalam mengikuti pembelajaran menggunakan model yang diimplementasikan.

Kata Kunci : *PBL*, Kemampuan kognitif, berpikir kreatif, bertindak kreatif penjernihan air

ABSTRACT

Analysis Of Cognitive Competence And Students' Creativity Through *Problem Based-Learning* About Water Purification

The aim of study is to obtain the information about the use of *PBL* model to improve cognitive competence, and students' creativity about water purification. The research method used is a quasi-experimental *one group pretest-posttest design,* with the subjects of study of 31students of class XI in SMK at Cimahi. The students are divided into three group categories: high, medium and low based on the average value of daily tests. The aspects of creative thinking skills developed are aspect of *flexibility*, *fluency*, *originality*, *Elaboration,* and *Evaluation*, as for the aspect of the creative act that is preparation, execution, and final. The instruments used are multiple choice, essay, observation sheet, questionnaire (*Likert* scale) and interview. The improved learning outcomes are calculated by using the formula *N-gain.* We use *Pearson* correlation to see the relationship between the improvement of cognitive competence and the skill of creative thinking action correlation with significance level of 0,05. The results of this learning model show students' cognitive competence with medium category (*N-gain* average = 65.18%). Achievement of fluency aspect is (78.43 %, high category), then for flexibility (74.54%, high category), originality (70.81%, high category), elaboration (69.93%, medium category), and evaluation (medium category). Increased creative act the preparation (78,43%), execution (84,46%), and final (84.68%). There is a moderate relationship between improved cognitive competence and creative thinking skills (r = 0,497). The relationship of creative thinking and the creative act there is a strong relationship category (r = 0,626). Means of water purification is the creative product of students. The students respond positively toward learning. They are excited and motivated to follow the way they study by using the implemented model.

Keywords: *PBL*, cognitive competence, creative thinking, creative action, water purification