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# Peningkatan Kemampuan Berpikir Kreatif melalui Penerapan Project Based Learning pada Materi Pencemaran dan Daur Ulang Limbah

# Enhancement of Creative Thinking Ability through the Implementation of Project Based Learning on Material and Waste Recycling

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Abstract : This study aims to improve the ability of creative thinking through Project Based Learning on pollution and waste recycling materials. This research is a classroom action research conducted for 2 cycles. Each research cycle consists of 4 stages, namely planning, action, observation, and reflection. The subjects of the study were the students of grade X SMA N 2 Boyolali with 37 students. Research data obtained through class observation, interviews, documentation, and tests of creative thinking ability that consists of aspects of *fluency*, *flexibility*, originality, and elaboration. Validation of data is done by triangulation technique. Data analysis using qualitative descriptive analysis technique. The results showed that each aspect of creative thinking ability in pre-cycle that is *fluency* 25,4% included in category less, *flexibility* 24,8% included in category less, *originality* 15,9% included in category less, and elaboration 18,6 % Included in the category less. The achievement percentage of each aspect of the ability of creative thinking in the first cycle that is *fluency* 34.5% included in the category enough, *flexibility* 41.8% included in the category enough, *originality* 37% included in the category enough, and *elaboration* 40.5% included in the category enough. The achievement percentage of each aspect of creative thinking ability in cycle II that is *fluency* 78,6% included in creative category, *flexibility* 52,1% included in enough category, 48,9% originality included in enough category, and elaboration 58,6% including In sufficient category. The achievement of students' creative thinking ability from pre-cycle to cycle II has increased according to the research target of  $\geq 20\%$  through the implementation of *Project Based Learning* model.

Key Words: Project based learning, creative thinking ability, waste recycling.

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## DISKUSI

### Ramadhani Latifah Faeka Murni – FKIP Universitas Sebelas Maret

### Pertanyaan:

Mengapa didalam berpikir kreatif ada berpikir?

#### Jawaban:

Karena sumber utamanya adalah Torren, dan sember kedua adalah Munandar.Torren dalam Munandar mengemukakan ada 4 aspek yang memengaruhi berpikir kreatif, didalam aspek ada indikator. Yang ditekankan adalah kelancaran atau kreatifitasnya karena Torren sendiri adalah Bapak Pendidikan Kreatif.