

ABSTRAK

Karunia Eka Lestari. (1101196). Implementasi *Brain-Based Learning* untuk Meningkatkan Kemampuan Koneksi dan Berpikir Kritis Matematis Siswa SMP

This research is motivated by the facts on the ground which indicates that the critical thinking skills and mathematical connections students have not been as expected. One of the factors causing these problems is learning not to give freedom to students to empower the potential for optimal brain, where learning is generally more focused on getting the left brain function. Meanwhile, teaches critical thinking skills and mathematical connections need to be supported by the movement of the right brain. These characteristics can be found in Brain-based learning Learning (BbL) because the BbL offers a concept of learning that is aligned with the workings of the brain which is designed by nature to learn.

The research method used was quasi-experimental, with a population of eighth grade students of SMP Negeri 1 Sukasari Sumedang consisting of five classes and two classes taken as sampel research. Quantitative data obtained from the pretest and posttest critical thinking skills and mathematical connections further processed by descriptive and inferential. While the qualitative data obtained from the questionnaire motivation, daily journal and observation sheet further processed descriptively.

The results showed that: 1) an increase in critical thinking skills and mathematical connections through BBL students better students who received conventional learning, 2) the overall response of the students' learning motivation and learning of mathematics that gets through BBL, show a positive attitude.

Keyword: Brain-based Learning, mathematical connections, critical thinking skills, and student's motivation.