

## ABSTRAK

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### **Meningkatkan Kemampuan Berpikir Kreatif Matematis Siswa SMP melalui Penerapan Strategi *Brain-based learning* Berbantuan *Geogebra*.**

Penelitian ini dilatarbelakangi oleh pentingnya kemampuan berpikir kreatif matematis bagi siswa dan fakta rendahnya kemampuan berpikir kreatif matematis siswa. Tujuan dari penelitian ini adalah: (1) mengetahui peningkatan kemampuan berpikir kreatif siswa SMP yang memperoleh pembelajaran matematika dengan menggunakan strategi *Brain-based learning* berbantuan *Geogebra*, (2) Mengetahui sikap siswa terhadap pembelajaran matematika dengan menggunakan strategi *Brain-based learning* berbantuan *Geogebra*. Metode yang digunakan dalam penelitian ini adalah metode kuasi eksperimen dengan desain kelompok kontrol non-ekivalen. Populasi dalam penelitian adalah seluruh siswa kelas VIII di salah satu SMP Negeri di kota Bandung, dengan sampel sebanyak dua kelas. Satu kelas diberikan perlakuan berupa penerapan strategi *Brain-based learning* berbantuan *Geogebra* sedangkan kelas lainnya dengan strategi ekspositori. Data penelitian diperoleh melalui tes kemampuan berpikir kreatif matematis siswa, jurnal harian siswa, angket, dan lembar observasi. Hasil penelitian menunjukkan bahwa: (1) peningkatan kemampuan berpikir kreatif matematis siswa yang memperoleh pembelajaran dengan strategi *Brain-based learning* berbantuan *Geogebra* lebih baik dibandingkan dengan kemampuan berpikir kreatif matematis siswa yang memperoleh pembelajaran dengan strategi ekspositori, (2) Siswa memiliki sikap yang positif terhadap pembelajaran matematika dengan strategi *Brain-based learning* berbantuan *Geogebra*.

**Kata kunci:** Strategi *Brain-based learning*, *Geogebra*, Strategi Ekspositori, Kemampuan Berpikir Kreatif Matematis

## ABSTRACT

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### **Improving creative thinking mathematical ability of junior high school students through implementation Brain-based learning strategy aided GeoGebra**

The research was distributed by the importance of creative mathematical thinking ability of students and the fact of creative thinking mathematical ability that students had. The aims of this study were: (1) to determine the increase of creative thinking mathematical ability among students who were learning by using Brain-based learning strategy aided GeoGebra, (2) to investigated the students' response toward learning mathematics by using Brain-based learning strategies aided GeoGebra. The methods used in this research is a method of quasi experimental design with nonequivalent control group design. The population of the research is the students of 8<sup>th</sup> grade in one junior high school in Bandung city, has been selected two classes. One of the class is given Brain-based learning strategies aided GeoGebra and the other with expository strategy. The research data obtained through test of creative thinking mathematical ability, student's daily journal, questionnaire and observation sheet. The results showed that: (1) increased the creative thinking mathematical ability of students through Brain-based learning strategy aided GeoGebra better compared to creative thinking mathematical ability of students through expository strategy, (2) Students had a positive response towards learning mathematics with Brain-based learning strategy aided GeoGebra.

**Keywords:** Brain-based learning strategy, GeoGebra, Expository strategy, Creative thinking mathematical ability