ABSTRACT

Nasywa Ashri Utami. (2019). **Using Brain Based Learning (BBL) Model to Increase Ability of Mathematical Communication and Self-efficacy of Junior High School Student.**

This research purposes to: (1) discover that the increase in mathematical communication of student who obtain Brain Based Learning (BBL) model is higher than student who obtain conventional learning model; (2) discover the self-efficacy of student who obtain Brain Based Learning (BBL) model is better than student who obtain conventional learning model; (3) discover the effectiveness of Brain Based Learning (BBL) model for mathematical communication ability. This research used quasi-experiment method with pretest-posttest control group design. The population of this research is VIII grade student of Junior High School 40 Bandung during the 2019-2020 academic year. For the research sample two classes were taken, class VIII F obtain as an experiment class with the treatmeant of the Brain Based Learning (BBL) model and class VIII J as a control class with conventional learning model. The research instrument used consisted of test instrument and non-test instrument. Data was analyzed with software IBM Statistical Product and Service Solution (SPSS) 20.0 for Windows and cohen's d formula to verify effectiveness. The results this research, are: (1) The increase in mathematical communication ability of student who obtain Brain Based Learning (BBL) model is higher than the mathematical communication ability of student who obtain conventional learning model; (2) The self-efficacy of student who obtain Brain Based Learning (BBL) model is better than self-efficacy of student who obtain conventional learning; (3) The effectiveness of Brain Based Learning (BBL) model for student mathematical communication ability classified in the large category.

Keyword: Mathematical communication ability, Brain Based Learning (BBL) model, and Self-efficacy