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**THE EFFECTS OF BRAIN-BASED LEARNING STRATEGY ON THE SCIENCE  
ACHIEVEMENT AND SELF-EFFICACY OF GRADE 8 STUDENTS OF  
PSCNHS WITH VARIED BRAIN HEMISPHERICITY**

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**ABSTRACT**

The main purpose of this study was to determine the effects of brain-based learning strategy (BBL) on the science achievement of grade 8 students and their self-efficacy across their brain hemisphericity. It was conducted at Pulong Sta.Cruz National High School in Sta. Rosa City, Laguna during the 3rd quarter of the school year 2022-2023. The sample of the study involved one heterogenous section of grade 7 students composed of 38 students which was chosen using purposive sampling. The study utilized the single group pretest-posttest pre- experimental design and the conduct of the study lasted for two weeks. The Brain Dominance Inventory (BDI) was administered to the students to classify their brain hemisphericity while the Self-Efficacy Questionnaire (SEQ) was administered to determine their level of self-efficacy before and after the treatment. The Science Achievement Test (SAT) was used to get their pretest and posttest scores. Rubrics scoring was utilized on the students' outputs in the BBL activities to determine their performance. Results revealed that there is a significant difference between the pretest and posttest scores in the SAT and SEQ using paired t-test. This indicates that the students improved their science achievement and self-efficacy after their exposure to BBL. However, there is no significant difference between the posttest

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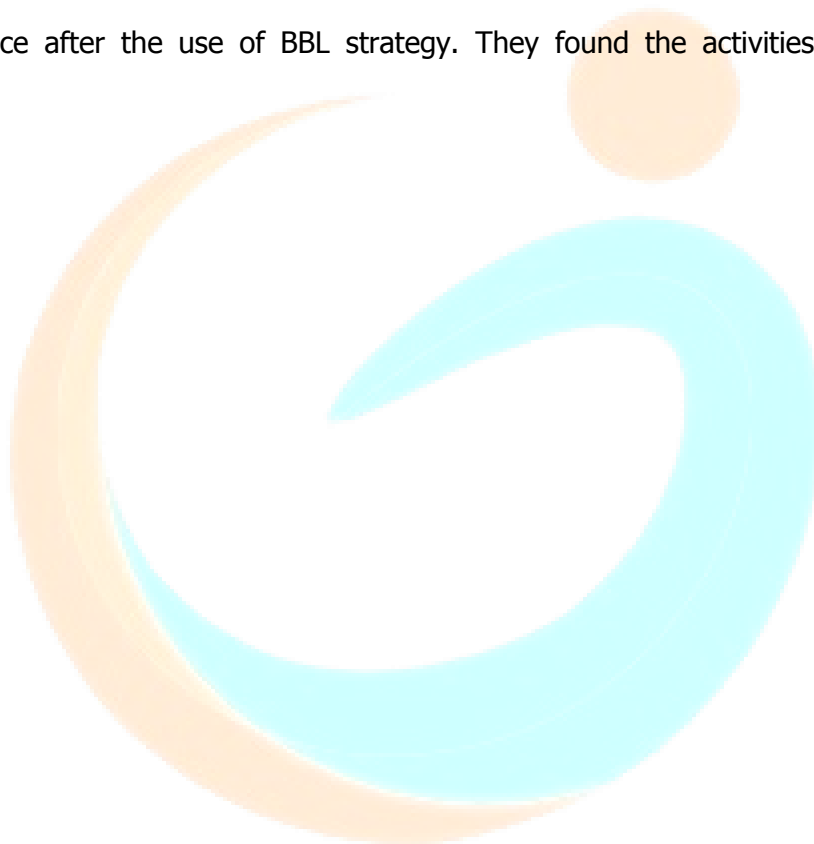
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scores in the SAT and SEQ across brain hemisphericity groups, using t-test for independent samples. This indicates that BBL is equally effective in improving the science achievement and self-efficacy of the students regardless of whether they are left-brained or right-brained. Their performance in the BBL activities is described as good. Moreover, responses of the students' in Learning Experiences Survey (SLES) revealed that the students had positive experiences in learning science after the use of BBL strategy. They found the activities enjoyable and meaningful.



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