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Project-Based Learning Strategies in Science and the Metacognitive Skills among Grade 5 Pupils

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Abstract

This study aimed to determine the effect of project-based learning strategies in enhancing metacognitive skills in Science among Grade 5 pupils of Sumagonsong Elementary High School during the School Year 2021-2022. This is an experimental research design which utilized the pre-test and post-test assessment. Sixty (60) grade 5 students were used as a respondent from two heterogeneous sections which were selected though matched-pairing using their second quarter grades as a basis. The first group was exposed to case-based teaching and the second group was exposed to just-in-time teaching. A validated forty-five (45) metacognitive test was used in the study to determine significant differences in pre-test and post-test scores of the two groups. The study revealed that the pre-test scores of the respondents in the two experimental groups as to their metacognitive skills in terms of planning, monitoring and evaluating were in beginning and developing level, indicating that students possessed poor metacognitive skills. The post-test scores of the students of both groups showed improvement in their scores after the treatment, indicating acquisition of enhanced metacognitive skills. Likewise, a significant difference was found between the pre-test and post-test scores of both groups exposed to project-based strategies. However, there's no significant difference in the effectiveness of case-based teaching and just-in-time teaching in enhancing metacognitive skills such as planning, monitoring and evaluating.

Keywords: Project-Based Learning Strategies, Metacognitive Skills, T-test, Philippines