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ABSTRAK

Penelitian ini bertujuan untuk mengetahui perbedaan kemampuan literasi sains siswa sebelum dan sesudah pembelajaran *Project Based Learning* (PjBL) yang diintegrasikan dengan *Science, Tecnology, Engineering and Mathematic* (STEM), keterlaksanaan pembelajaran dan respon siswa melalui pembelajaran *Project Based Learning* (PjBL). Jenis penelitian yang digunakan adalah penelitian kuantitatif dengan metode pre-eksperimental. Desain penelitian ini adalah *one group pretest-posttest*. Populasi yang digunakan adalah siswa kelas VIII SMPN 2 Kwanyar dengan sampel kelas VIII B. Uji hipotesis penelitian ini menggunakan *Paired Sampel T Test*. Hasil uji signifikansi diperoleh $0,000 < 0,025$ dan diperkuat uji hipotesis dua pihak dengan nilai $-t_{hitung} < t_{tabel} < t_{hitung}$ yaitu $-13,939 < 2,074 < 13,393$. Sedangkan Hasil kemampuan literasi sains tingkat nominal sebesar 74%, tingkat fungsional sebesar 62% dan tingkat konseptual/prosedural sebesar 58,3%. Sehingga dapat disimpulkan bahwa ada perbedaan kemampuan literasi sains sebelum dan sesudah penerapan *Project Based Learning-STEM*. Keterlaksanaan *Project Based Learning-STEM* memiliki nilai rata-rata sebesar 90,4% dengan kategori sangat tinggi. Respon siswa terhadap *Project Based Learning-STEM* memperoleh nilai rata-rata sebesar 70% dengan kategori sangat menarik.

Kata Kunci: Literasi Sains, *Project Based Learning*, STEM.

Raudatus Sarifa. 2018. *Implementation of Project Based Learning-STEM on Literacy Skill of Junior High School Students*. Thesis, Natural Science Education Study Program Faculty of Education Science University of Trunojoyo Madura. First Advisor: Fatimatul Munawaroh, S.Si., M.Si, and Second Advisor Irsad Rosidi S.Pd., M.Pd.

ABSTRACT

This research aimed to find out differences students' science literacy skills before and after the learning of Project Based Learning (PjBL) integrated with Science, Tecnology, Engineering and Mathematics (STEM), learning implementation and student response through learning of Project Based Learning (PjBL) with Science, Tecnology, Engineering and Mathematics (STEM) on the theme of vibration and waves. The research was kind of pre-experimental research and using one group pretest-posttes designt. The population used students VIII class of Junior High School 2 of Kwanyar with sample on VIII B class. The hypothesis test of this study using Paired Samples T Test. The result of signficance test obtained value $0.000 < 0,025$ and confirmed two tail hypothesis test with value $-t_{\text{calculation}} < t_{\text{table}} < t_{\text{calculation}}$ of $-13,939 < 2,074 < 13,393$. While the result of science literacy ability of nominal level of 74%, functional level of 62% and conceptual/procedural level of 58,3%. It can be concluded that there are differences in the ability of science literacy skill before and after the implementation of Project Based Learning-STEM. The implementation of Project Based Learning-STEM had average value about 90,4% by very high category. The response of student response to Project Based Learning -STEM showed average value about 70% by very interesting category.

Keywords: *Literacy Science, Project Based Learning, STEM.*