

ABSTRACT

Rahel Situmorang, NIM 4201151007. The Effect of Ethnoscience Integrated Phenomenon Based Learning on Scientific Literacy and Scientific Argumentation of Junior High School Students

This study aims to determine the effect of the implementation of the ethnoscience integrated phenomenon-based learning on students' scientific literacy and scientific argumentation of junior high school students. This type of research is a quasi-experiment with two-group pretest-posttest design. The population of this study was all grade VII students of SMP Negeri 1 Palipi. The research sample was taken by simple random sampling technique consisting of two classes, namely class VII-A as an experimental class and class VII-B as a control class, each class consisting of 32 students. The research instrument is a multiple-choice test with four options to measure scientific literacy and a description test to measure scientific argumentation. Data analysis using manova, correlation, and normalized-gain tests (N-gain). Based on the result of the manova test, it was found that ethnoscience integrated phenomenon-based learning has a significant effect on scientific literacy and argumentation on temperature and heat material. The percentage increase in N-gain in scientific literacy in the experimental class was 63% (medium category) and in the control class was 32% (medium category). The percentage increase in N-gain scientific argumentation in the experimental class was 66% (medium category) and in the control class was 31% (medium category). The results of the correlation test showed that there was a relationship between scientific literacy and scientific argumentation of 0.400 in the experimental class, meaning that there was a medium correlation between scientific literacy and scientific argumentation with ethnoscience integrated phenomenon-based learning in class VII natural science learning on temperature and heat material.

Keywords: Ethnoscience, phenomenon-based learning, scientific literacy, scientific argumentation