

ABSTRACT

ANGEL G. Sihite, NIM 4183151025 (2025). The Effect of The Inquiry Training Model on Work, Energy and Simple Machine Topics in HOTS-Literacy Grade VIII at SMPN 27 Medan

This research aims to determine the effect of the Inquiry Training model on students' Higher-Order Thinking Skills (HOTS) literacy, specifically in the context of Work, Energy, and Simple Machine topics at SMPN 27 Medan. The research is driven by two specific objectives: (1) to assess whether the application of the Inquiry Training model influences students' HOTS literacy compared to the expository model, and (2) to identify which category of HOTS literacy is most developed through the Inquiry Training model. This Research Uses Quasi Experimental method with a two-group pretest-posttest design. The sampling technique uses random sampling. The research sample consisted of two classes, namely class VIII-3 use inquiry Training model and VIII-2 use expository model, each class consisted of 31 students. Data were collected using pretest and posttest assessments of 20 multiple-choice questions designed to measure HOTS literacy across cognitive domains (C4, C5, and C6). The N-gain for the experiment class was 75.45%, and 45.22% in the control class. In the t test calculation, the calculated t_{count} was 3.89, with t_{table} 2.001. The experiment class demonstrated the highest improvement in the cognitive domain of evaluation reasoning (C6), with N gain of 96%. The findings suggest that the Inquiry Training model effectively enhances students' HOTS literacy, particularly in science subjects, Work, Energy, and Simple Machines.

Keywords: Inquiry Training Model, HOTS Literacy, Work, Energy, Simple Machines, Quasi-Experimental, Science Education.

