## **ABSTRACT**

Sisilia Anabina Tarigan, IDN 4203151032 (2024). The Effect of Discovery Learning Model on HOT Literacy in Solar System Material of VII Grade Students in Junior High School.

This research aims to determine whether the increase in learning outcomes and the most developed cognitive domain through the Discovery Learning model is higher than the conventional model on Solar System material. This research is a quasi-experimental research. The study population was all VII grade students of SMP Negeri 2 Kabanjahe. Sampling was done purposively. The sample in this research consisted of two classes, the experimental class was taught by applying the discovery learning model and the control class with the conventional model. The instrument used is a validated HOT Literacy ability test in the form of multiple choice of 20 questions by meeting the requirements of content validation, difficulty level, differentiation and reliability. The results obtained r<sub>count</sub>> r<sub>table</sub> which is 0.741> 0.373, so it can be concluded that the question is reliable. Data on the average value of the increase in students' HOT literacy skills (Gain) obtained from both sample groups are homogeneous and normally distributed. From the research results, for the experimental class, the average value of the pretest was 35 and the posttest was 78.5. While the average pretest value for the control class was 33.9 and the posttest was 57.3. The results of the average acquisition value of the increase in students' HOT Literacy Ability (Gain) in the experimental class was 0.66 (66%) while in the control class was 0.34 (34%). To draw conclusions, the hypothesis test was carried out using a one-sided t-test, namely right side-t, the significance of the hypothesis test was 0.000, where the significance result was smaller than 0.05 (0.000 < 0.05) so that H<sub>a</sub> was accepted and H<sub>o</sub> was rejected. Thus, the increase in HOT literacy skills of students given the discovery learning model is higher than conventional learning. The most developed cognitive aspects in the experimental class were C4 by 78%, C6 by 62% and C5 by 52%.

Keyword: Discovery Learning, HOT Literacy, Solar System