

ABSTRACT

Isfahani IDN 4211151009 (2025), The Effect of The Cooperative Learning Model Type Numbered Heads Together (NHT) to Improve Critical Thinking Skill on Ecology and Biodiversity Material Grade VII at SMP Negeri 35 Medan

This study aims to determine the effect of the Numbered Heads Together (NHT) cooperative learning model on students' learning outcomes and critical thinking skills in Ecology and Biodiversity material for Grade VII students at SMP Negeri 35 Medan. The research employed a quasi-experimental method using a nonequivalent control group design involving two classes with a total of 64 students, in which the experimental class was taught using the NHT learning model while the control class was taught using a conventional teacher-centered learning model. Data were collected through pretest and posttest instruments, and the improvement in students' learning outcomes was measured using the normalized gain (N-Gain). The results showed that both classes experienced improvement; however, the experimental class demonstrated a higher increase, with an average N-Gain score of 0.523 categorized as medium, compared to 0.372 in the control class, which was also categorized as medium. Furthermore, the results of the one-tailed independent sample t-test showed a significance value of 0.000 ($p < 0.05$), indicating that the improvement in learning outcomes of students taught using the NHT learning model was significantly higher than that of students taught using the conventional learning model. These findings indicate that the Numbered Heads Together (NHT) learning model has a positive and significant effect on students' learning outcomes and can be used as an effective alternative model in science learning, particularly in Ecology and Biodiversity topics.

Keywords: Numbered Heads Together (NHT), Cooperative Learning, Critical Thinking, Ecology and Biodiversity, Conventional Learning

