

ABSTRACT

Nursyahadah, IDN 4182121007 (2018). The Analysis of Group Division in The Thinking Aloud Pair Problem Solving (TAPPS) Learning Model to Improve Student Learning Outcomes on Momentum and Impulse Topics.

This research objective: (1) Find out the effect of the group division in the TAPPS learning model on students' ability to solve problems in the topics of momentum and impulse; (2) Determine the improvement of students' problem-solving ability in momentum and impulse topics after group division in the TAPPS learning model is applied; (3) Find out the effect of group division in the TAPPS learning model on students' learning outcomes in momentum and impulse topics; (4) Determine the improvement in the students' learning outcomes on momentum and impulse topics after group division in the TAPPS learning model applied. The subjects of this research were students at SMA Islam Al Ulum Terpadu Medan, consisting of two classes. X MIA 1 consists of 28 students who will be divided into 3 group divisions with different numbers of members. X MIA 2, formed of 30 students, will also be divided into 3 group divisions with varying numbers of members. The type of research was a true experiment to determine the effect of group division in the TAPPS model for the subject. The data collection instrument used in this research consisted of a problem-solving test with 10 essay forms that three experts had validated. The data analysis techniques used in this study are quantitative. The data is checked by two correctors. The results of this study: (1) There is an effect of group division in the TAPPS learning model on students' problem-solving ability on momentum and impulse topics. (2) The improvement can be seen from the one-way ANOVA, which is used to see the significant difference in the average score between all pairs in the pretest and all pairs in the posttest. The p-value in both correctors is smaller than 0,05 ($0,00 < 0,05$). (3) There is an improvement in students' problem-solving ability to an improvement in students' learning outcomes. (4) The improvement can be seen from the n-Gain test used to see the difference between pretest and posttest final values in every group division. The interval of n-Gain between group divisions is 0,32 – 0,40. this value is included in the medium category, which is ($0.30 \leq n\text{-Gain} \leq 0.70$). so, based on these results, the group division in the TAPPS learning model can improve student learning outcomes on momentum and impulse topics.

Keywords: Group Division, TAPPS learning model, students' problem-solving ability, students' learning outcomes