An Investigation of students Mathematical concept understanding and motivation through the implementation of aptitude treatment interaction learning model

Agustan Syamsuddin, Rosleny Babo, Sulfasyah, Hariati Bakri, Jainuddin

Abstract

This paper presents a result of investigation of elementary school 5th grade students’ mathematical concepts understanding and learning motivation by implementing Aptitude Treatment Interaction (ATI) learning model. Therefore, the researchers selected quasi experiment with two group randomized subject post-test only design, involving 60 students as samples using random sampling technique. Data were taken using test of mathematical concept understanding and questionnaire of motivation and analyzed using descriptive and inferential statistical through t-test and manova to measure the influence of ATI learning model on students’ mathematical concept understanding and motivations simultaneously. Descriptively, the average score of mathematical concepts understanding in ATI learning model is 81.90 with excellent category while the average score of mathematical concepts understanding in direct instruction model is 75.23 with good category. The average score of learning motivation with the ATI learning model is 130.03 with an excellent category while the direct instruction model is 109.93 with a good category. The result of the independent sample t-test and manova test shows that the implementation of ATI learning model meaningfully influenced students’ mathematical concept understanding and motivation in learning mathematics.

Keywords:

ATI learning model, learning motivation, mathematical concept understanding