

The Relationship Between Reasoning Ability and Mathematics Achievement of Grade Nine Students

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Abstract

The main purpose of this study is to explore the relationship between reasoning ability and mathematics achievement of Grade Nine students. It was intended to compare the reasoning ability and mathematics achievement of Grade Nine students from two Basic Education High schools in Mawlamyine Township, Mon State. This study also aimed to find out the gender differences and subject combination differences in reasoning ability and mathematics achievement of Grade Nine students. Quantitative approach was used in this study. By using random sampling technique, 100 students were selected from school 1 and another 100 students were selected from school 2. Therefore, a total of 200 Grade Nine students in 2017-2018 AY participated in this study. Reasoning ability test (Fibonacci, 2011) consists of 28 items and researcher made mathematics achievement test were used. The result pointed out that students' mathematics achievement was strongly correlated with their numerical reasoning, figural reasoning and logical reasoning at 0.01 level. Moreover, male students outperformed more than female students in their mathematics achievement and reasoning ability. Moreover, combination (7) students better performed than combination (1) students in mathematics achievement and reasoning ability.

Key words: Reasoning, Mathematics achievement

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