

Analysis of Mathematics Textbooks on Fraction Teaching Content Based on Gracin's Five-Dimensional Frameworks

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ABSTRACT

Textbooks have important roles in teaching and learning process. Most of books are used to determine what should be taught and what students should learn. Book analysis can give knowledge to the reasons of differences in student achievement. Gracin says mathematics textbooks are good if five-dimensional frameworks are met. Those are content, mathematics activities, complexity levels, answer forms, and contextual features. The objectives of this study are 1) to describe the contents of fraction arithmetic operation that are introduced and developed in the mathematics textbooks; 2) to assess mathematical activity that are available in the mathematics textbooks; 3) to assess complexity level that are given in the mathematics textbooks; 4) to analyse contextual features that are used in the mathematics problems in the mathematics textbooks; 5) to assess the answer forms that are intended by mathematics problems in the mathematics textbooks. This study uses textbook research. The data collected by using documentation method, i.e. using documents for further analysis. The document that is used in this study is elementary school mathematics textbook curriculum 2013 revised edition, and the data analysis technique uses the Gracin framework.

Kata Kunci: Mathematics Textbook, Fraction Arithmetic Operation, Gracin's Five-Dimensional Framework.