

Comparative Study of Primary School Mathematics Textbooks between Singapore and Indonesia: The Case of Fractions

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ABSTRACT

Textbooks play an important role in the teaching and learning process, and most books are used to determine what to teach and what students learn; book analysis can provide insight into the reasons for differences in student achievement. The objectives of this study are 1) to describe the similarities and differences between math textbooks on fractions for elementary schools in Indonesia and Singapore; 2) Describe the structure of the presentation of fractional material introduced and developed in textbooks in Indonesia and Singapore. 3) Analyze the form of assignments presented in textbooks in Indonesia and Singapore. This study uses a comparison of textbooks. The data collection carried out in this study used the documentation method, namely using documents for further analysis. The documents referred to in this study are mathematics textbooks for elementary schools with fraction materials in Indonesia and Singapore. Data analysis uses a comparison based on Gracin's Framework. The results showed that 1) Mathematics textbooks in Indonesia and Singapore in percentage almost have many similarities in several variables (content, mathematical activity, level complexity, and contextual features). The striking difference is in the form of the answer variable. Books in Singapore are not found in the form of multiple-choice questions, while in Indonesia, some of them are in the form of closed answers (multiple choice); 2) The structure of the presentation of fractions material is introduced and developed in textbooks in Indonesia and Singapore, with almost the same pattern. Namely using the Inductive approach; 3) The forms of assignments presented in textbooks in Indonesia and Singapore are almost similar. Namely, using a problem-based approach. However, the book section in Singapore is more detailed in presenting the form of the assignment.

Kata Kunci: Mathematics Textbook, Fraction Counting Operation, Comparison.