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A comparison of textbooks' presentation of fractions.

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Summary: In the United States, fractions are an important part of the middle school curriculum, yet many middle school students struggle with fraction concepts. Teachers also have difficulty with the conceptual understanding needed to teach fractions and rely on textbooks when making instructional decisions. This reliance on textbooks, the idea that teaching and learning of fractions is a complex process, and that fraction understanding is the foundation for later topics such as proportionality, algebra, and probability, makes it important to examine the variation in presentation of fraction concepts in U.S. textbooks, especially the difference between traditional and standards-based curricula. The purpose of this study is to determine if differences exist in the presentation of fractions in conventional and standards-based textbooks and how these differences align with the recommendations of National Council of Teachers of Mathematics, Common Core State Standards, and the research on the teaching and learning of fractions.

Classification: F43 U23

Keywords: fractions; textbook analysis; representation

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