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The role of picture books in young children's mathematics learning.

English, Lyn D (ed.) et al., Reconceptualizing early mathematics learning. Dordrecht: Springer (ISBN 978-94-007-6439-2/hbk; 978-94-007-6440-8/ebook). Advances in Mathematics Education, 227-251 (2013).

Summary: In this chapter we address the role of picture books in kindergartners' learning of mathematics. The chapter is based on various studies we carried out on this topic from different perspectives. All studies sought to provide insight into the power of picture books to contribute to the development of mathematical understanding by young children. We start the chapter with some background information about picture books as a didactical tool in mathematics education. Then, we discuss a framework of picture book characteristics that support young children's learning of mathematics. In the next section, we give a short impression of children's spontaneous mathematics-related utterances that occur during the reading of a picture book. This section is followed by a deeper look at the influence of the pictures in a picture book. Hereafter, the reading itself is the focus. Three book reading techniques are discussed and illustrated by classroom vignettes. Finally, based on an intervention program in which kindergartners were read a series of picture books, we report what we learned about the effectiveness of picture book reading on kindergartners' performance in mathematics.

Classification: U61 D41

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