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The Effect of Book Design on Beginning Readers' Attention Allocation

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Abstract: Books for beginning readers typically intermix text and pictures in close proximity. The proximity of difficult-to-decode text to pictures may induce competition between these sources of information. As a result, children may frequently shift gaze between text and pictures, which may degrade memory representations of the text and reduce comprehension. A mobile eye tracker was used to measure children's attention allocation while reading commercially available books for beginning readers. Preliminary evidence suggests that pictures capture young children's (N=12, Mage=7.14 years) attention while they are engaged in guided reading. Even when the text was short (on average 6.94 words per page), children frequently shifted their attention between text and pictures. Per page, children made on average 2.80 alterations from text to pictures (Range: 0.93 to 6.57 alterations). These findings are consistent with the hypothesis that the close proximity of text and pictures may result in competition between these sources of information.