

*The effects of selected e-book features on children's literacy development in Year-1:
A small-scale Randomised Controlled Trial*

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Abstract:

Background: The unique effects of specific interface features in children's e-books are widely disputed. Inconsistent research findings often accentuate the limitations in generalising effects across different technologies. As a consequence, it is difficult to make an informed choice about which types of e-books, and which specific features, are most effective. This paper examines the unique effects of specific interface features.

Method: The effects of three different e-book prototypes 1) 'Flat' e-book, 2) 'e-book Friend', and 3) 'the Dictionary' were investigated in a pre- and post-test comparison design. Ninety typically developing Year-1 readers were selected from nine primary schools and then randomly assigned to one of the experimental groups. Participants were assessed at pre-test on the BAS Naming Vocabulary and WASI Matric Reasoning Scale; at post-test on Story Comprehension, Recall, Definitions and Enjoyment; and at pre- and post-test on Target Word Recognition.

Findings: Results revealed that children in 'the Dictionary' group increased more in Word Recognition compared to the children in the 'e-book Friend' group. On the other hand, children in the 'e-book Friend' group made significantly greater gains in Reading Comprehension compared to children in 'the Dictionary' group. Children in the 'Flat e-book' group were significantly better in their Recall performance compared to children in 'the Dictionary' group.

Discussion: Specific features of each prototype have differential effects on children's learning. Regardless of prototype, interviews with a sub-sample of children showed that independent e-book reading was an enjoyable, fun and fruitful activity. Limitations and future research are also discussed.

Word count: 248