School Based Shared Reading with iReadWith Books Improves Emergent Literacy Skills

Susan Rvachew, Kathrin Rees, Aparna Nadig
Elizabeth Carolan & Elisabeth Christe
School of Communication Sciences & Disorders, McGill University
Centre for Research in Brain, Language and Music

Attention to Print: Print Book Study 1


Attention to Print: Print Book Study 2


Scientific Context

• What is the problem that iReadWith was designed to solve?
  – Studies suggest that print books are not engaging enough…
    • Children are less likely to learn print concepts, especially word recognition.
  – Studies suggest that ebooks are too engaging…
    • Children are less likely to learn language and story content.

iReadWith

• Promote knowledge of emergent literacy
  – Living words to draw child’s attention to text
  – Linking of living words to animations to help child associate words with referents
  – Comments for parents to draw child’s attention to word structure, especially onsets and rhymes
• Promote knowledge of story structure
  – Animations to engage child’s attention to story details
  – Prompts for parents to help child recall past events and predict future events
  – Prompts for parents to help child remember important story elements (setting, character, problems, solutions, feelings)

iReadwith Book Characteristics

Mummy says right away, “What’s on Matthew’s head?” The part of the chicken is a hat. “What’s on Matthew’s head?” “That’s a hat,” he says. “What’s in the window?” she asks. “Those are jellies,” he tells her.
Study Design
- 2 schools, English school board, low income communities
- 28 kindergarten children
- Readers were parents or support personnel
- Each child was read each of two books
- Each child experienced both print and ebook formats
- Each book read 3 times in one week
- Post test at end of each week

Random Assignment to Four Reading Orders

End of Week Assessment
- Letter Knowledge Assessed as Covariate
- Dependent Variables
  - Story Retell
  - Story Comprehension
  - Emergent Literacy
    - Phonological Awareness
    - Word Recognition

Letter Knowledge

Funny Noise
- O S V
- B WA
- x e t
- In z

First Play
- R C M
- S E P
- n a b
- w k g

Here are some letters. I want you to tell me their names.

Story Retell Coding Scheme
- Setting
  - (0, 1, or 2 points)
- Characters
  - (0 to 3 points)
- Events
  - (0 to 3 points)
- Number of different content words
  - (No limit)
- Rating of overall story sophistication
  - (1, 2, 3, 4, 5)
  - Sum points across all elements for final score

Story Comprehension Questions

Funny Noise
- Here is a page from the book. Can you tell me:
  - Who is this? (Gilbert the cat)
  - Where did Gilbert come from?
  - Was there a monster under Caillou’s bed?
  - What will happen next?

First Play
- Here is a page from the book. Can you tell me:
  - Where are the children in this picture?
  - What are the children doing in this picture?
  - Does Caillou wear a pirate costume in the play?
  - What do they do next?
Emergent Literacy Questions

Funny Noise
- m – mmm association
- ‘sight’ – ‘light’ rhyme match with pictures
- Recognize ‘Mommy’
- Recognize ‘noise’
- Identify ‘mountain’ given foils ‘tea’ and ‘couch’.

First Play
- f – fff association
- ‘shower’ – ‘flower’ rhyme match with pictures
- Recognize ‘sun’
- Recognize ‘cloud’?
- Identify ‘sound’ with foils ‘guitar’ and ‘elephant’.

Story Retell Result

Main effect of book type: F(1,26) = .968, p = .334, ns
Interaction with letter knowledge: F(1,26) = .215, p = .647, ns
Main effect of letter knowledge: F(1, 26) = 6.192, p = .02

Story Comprehension Result

Main effect of book type: F(1,26) = 1.407, p = .246, ns
Interaction with letter knowledge: F(1,26) = .873, p = .359 ns
Main effect of letter knowledge: F(1, 26) = 6.881 p = .014

Emergent Literacy Result

Main effect of book type: F(1,26) = 5.927, p = .022
Interaction with letter knowledge: F(1,26) = 5.769,  p = .024
Main effect of letter knowledge: F(1, 26) = 18.157, p < .0001

Adult Comments per Read

Main effect of book type: F(1,26) = 5.027, p = .022
Interaction with letter knowledge: F(1,26) = 5.769,  p = .024
Main effect of letter knowledge: F(1, 26) = 18.157, p < .0001

Conclusion

- Conclusion, after repeated shared reading sessions with iReadWith book compared to paper book we observed:
  - No disadvantage to ebook for story comprehension
  - Significant advantage to ebook for emergent literacy especially for children with low letter knowledge
- More research is required to confirm whether it is the design features of the iReadWith books or the repeated readings or both that accounts for the positive findings in this study
Conflict of Interest Disclosure

- Dr. Susan Rvachew and members of her lab consulted with Tribal Nova on the design of the iReadWith Books.
- Dr. Susan Rvachew has a financial interest in the iReadWith book series.
- The partnership between McGill University and Tribal Nova/HMH is governed by a formal agreement that assures McGill’s right to publish freely all results of our research involving the iReadWith books.

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