



## Which books are best? A look at how book features affect children's language learning

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As a Hanen certified speech-language pathologist, I've had many discussions with parents about using picture books with children. I have noticed some trends over the years that seem to influence parents' decisions about which books to read with their child.

For example, some parents:

- use books with black-and-white drawings, based on the theory that these images capture a baby's attention
- prefer books that the baby can manipulate, such as pop-ups, flaps or tabs, thinking that these features will increase their child's interest in the book
- buy electronic books for their children, based on the claim that these books help children learn to read

I've always followed the principle that it's not *what* you read, but *how you share it* with a child that makes the difference. However, I do find that some books seem to encourage interaction and language learning more than others.

This raises the question....do different types of books affect children's language learning? And . . .when it comes to facilitating language learning, which books are best?

To answer this question, I searched the literature for studies that have examined the effect of book features on children's language learning. My search revealed information about four topics:

1. How the **type of pictures** affect learning
2. How the **presence of manipulatives** in books affect language learning
3. How **electronic books** affect language and literacy learning
4. How the **type of book** (genre) affects parents' use of reading strategies

Interestingly, some of my clinical hunches were correct with regard to these topics, and some were not. The information I learned will affect the advice I give to parents, as well as the materials I select for use in intervention. In this article, I share my findings.

## 1. Do different types of pictures in a book make a difference to a child's language learning?

Simcock and DeLoache (2006) looked at 18-, 24- and 30-month olds' ability to learn the steps of a new task – putting together a rattle – from a picture book. They constructed three picture books: one with colour photos, one with coloured drawings and one with black-and-white drawings.

They found that:

- 18-month-olds learned more steps from colour photos than colour drawings (this age group was not tested with black-and-white drawings)
- 24-month-olds demonstrated the same performance with colour photos and colour drawings, but learned less from black-and-white drawings
- 30-month-olds learned some of the required steps with all three types of drawings

**Therefore, the answer to the question...**

**Do different types of pictures in a book make a difference to a child's language learning?**

**...is YES.**

This primarily affects 18-month olds, who learn more from colour photos and 24 month olds, who learn best from realistic colour photos and colourful illustrations, but not black-and-white drawings.

Simcock and DeLoache (2006) conclude that “the nature of the pictures in children's books can play a crucial role in learning from them” and that “the younger the child, the more difficult it is to appreciate the representational relation between a symbol – including a picture - and what it stands for” (p. 1356).

These results really come as no surprise. We would expect that realistic pictures would facilitate more learning in younger children. While the authors didn't look at children with developmental delays, it's likely that children with delayed symbolic skills or children functioning below 24 months of age would also benefit more from realistic images. While beautiful illustrations or trends such as black-and-white line drawings may tempt parents to choose a book for a child, this may not facilitate learning in very young children.

## 2. Are manipulatives in books helpful or distracting?

Two studies provide information about this topic:

### Study 1

Tare, Chiong, Ganea & DeLoache (2010) looked at typically-developing children's abilities to learn new words and new facts from three types of picture books:

- books with realistic, colour photographs
- books with colour drawings

- books with colour drawings and manipulatives such as flaps and tabs

The authors found that:

- 20-month-olds learned the most new words from books with realistic pictures. Their performance was second best with colour drawings, and poorest with books with manipulatives
- 30- and 36-month olds learned new facts (related to pictures in the books) most easily from books with realistic pictures, and not as well from books with manipulatives

The authors concluded that both the realism of the pictures and the manipulative features affect learning. Books with realistic pictures and no manipulatives led to more learning. They conclude that “trying to increase interest in material by adding irrelevant ‘bells and whistles’ actually results in less learning” and that “less is more when attempting to convey information to young children” (2010, p. 400).

## Study 2

Kaderavek & Justice (2005) examined four children with language impairment. The authors studied whether mothers’ and children’s language output differed when reading a narrative storybook versus a narrative + manipulative storybook. They found that:

- mothers’ language did not vary across book type (this surprised the authors)
- children used longer and more grammatically complex sentences and asked more questions during the book with manipulatives

The authors hypothesize that “the manipulative component of the storybook stimulated increased sentence length...because of the children’s heightened level of engagement and interest in the text” (p. 87). Furthermore, they feel that the opportunity for nonverbal participation (unfolding pages, lifting flaps) may have provided “linguistic bootstrapping” and may have also “facilitated the child feeling more powerful and in control” (p. 88).

**So are manipulatives in books helpful or distracting? The verdict still seems to be out on this one. For typically developing children, they might be distracting. But for children with language impairments, they may bootstrap language learning.**

## 3. Are electronic books more or less helpful for language and literacy development than paper books?

To find the answer to this question, I looked at a study by de Jong and Bus (2002), who tried to determine what four to six year olds “internalize” from repeated readings of one of three versions of the same book:

- a paper book

- a “restricted” e-book where children could press buttons to hear the story, etc., but could not access any games
- an “unrestricted” e-book in which games were accessible. The authors felt that this condition likely mimicked the way in which children accessed e-books in everyday life

Here’s what the authors found:

Children in the paper book group	Children in the electronic book groups
<ul style="list-style-type: none"> <li>• were exposed to all of the pages in the book</li> </ul>	<ul style="list-style-type: none"> <li>• accessed no more than 35% of the electronic book pages in full</li> <li>• “unrestricted” children explored half as many pages as “restricted” children</li> <li>• activated “read-aloud” options in bits and pieces (didn’t hear the pages of the book in the correct order)</li> </ul>
<ul style="list-style-type: none"> <li>• reproduced more verbal text from the story</li> </ul>	<ul style="list-style-type: none"> <li>• reproduced some verbal text from the story, but less than the paper book children</li> </ul>
<ul style="list-style-type: none"> <li>• knew story content better than control children (likely because they heard the full story several times)</li> </ul>	<ul style="list-style-type: none"> <li>• did not know story content better than control children (likely because they didn’t hear repetitions of the full story)</li> </ul>
<ul style="list-style-type: none"> <li>• made some progress reading words both with and without icons (icons: rebus-style pictures representing nouns from story)</li> </ul>	<ul style="list-style-type: none"> <li>• “restricted” children: made some progress reading words both with and without icons</li> <li>• “unrestricted” children: made some progress reading words only when icons present</li> </ul>
	<ul style="list-style-type: none"> <li>• “unrestricted” children spent almost half of their time playing games</li> </ul>

de Jong and Bus (2002) concluded that electronic books may “support internalizations of a book’s vocabulary and features of the written forms of the words” (p. 154) because children in the e-book conditions were able to recognize some written words. However, they consider electronic books to offer “a less efficient means of supporting internalizations of story content” (p. 154). They stated that the attractive buttons and games in e-books diverted children’s attention from the text and story. de Jong and Bus conclude that “the expectation that electronic books have the potential to yield reading sessions that in all respects are similar or even more challenging than those with regular books is not confirmed” (p. 154).

**Therefore, the answer to the question:**

**Are electronic books more or less helpful for language and literacy development than paper books? is LESS HELPFUL (thumbs up for paper books!).**

## 4. Does book genre influence parents' use of language strategies?

Stadler & McEvoy (2003) studied the effect of text genre (type) on parent use of joint book reading strategies to promote phonological awareness. The authors had the following hypotheses:

- Alphabet-rhyming books enhance phonological awareness
- Storybooks promote vocabulary, complex "literate" language and story grammar

They studied 72 children (mean age: 60 months), seventeen of whom had language impairment. Parents were asked to share an alphabet-rhyming book and a storybook with their child, just as they would at home. The authors scored the parents' use of two types of behaviours:

- **Content of language:** talking about characters, events, setting, or relating the child's personal experiences to the book
- **Form of Language:** language related to phonological awareness, print concepts, and book concepts (e.g. pointing out sounds, letters, words, rhyme, how to use a book, etc)

Stadler and McEvoy (2003) found that:

- many parents used few, if any, joint book reading strategies (either Content or Form)
- storybooks elicited more "Content" reading behaviours
- alphabet-rhyming books elicited more "Form" reading behaviours. However, they also elicited almost as many "Content" behaviours as storybooks, despite the lack of story within the book
- parents of children with language impairment used fewer "Form" behaviours (phonological awareness strategies) than parents of typically developing children

The authors explain that parents of children with language impairment may have used fewer "Form" behaviours because their children may have recognized fewer letters or asked fewer questions about letters. Alternatively, parents' goals for their children with language impairments may have been to increase sentence length and complexity, versus to stimulate phonological awareness.

Therefore...

**Does book genre influence parents' use of language strategies? YES.**

I was surprised to learn that parents used almost as many "content" reading strategies with alphabet-rhyming books as with storybooks. In the future, I won't steer parents away from these books as they can encourage two valuable forms of input – discussions related to phonological awareness and the story. Regardless of book genre, however, parents were found to use few, if any, joint book reading strategies. This highlights the importance of promoting parents' use of strategies overall during shared book reading with a variety of types of books.

## Putting it all together: Clinical implications

These studies underscore the importance of not only promoting parents' use of language and literacy-promoting strategies while sharing books with their child, but providing information about the types of books that are helpful. Specifically, parents should keep in mind:

- **the type of pictures in the book** - colourful realistic photos are a good option for a young child (under 24 months)
- **bells and whistles** - it is important to consider that features like electronic games, flaps, tabs, and pop-ups may detract from conversation
- **the genre of the book** - different types of books may encourage different reading strategies in parents, and different interest and behaviour in children.

I still believe that it's not just *what* you read, but *how you share it* with a child that makes the difference. However, after reading these articles I think I will take more care in recommending certain books for children, observing children with a greater variety of books, and noting parents' behaviour during different book selections.

**Note: to see a version of this article that you can easily share with parents and other caregivers, please [click here](#).**

## References

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## **About The Hanen Centre**

*Founded in 1975, The Hanen Centre is a Canadian not-for-profit charitable organization with a global reach. Its mission is to provide parents, caregivers, early childhood educators and speech-language pathologists with the knowledge and training they need to help young children develop the best possible language, social and literacy skills. This includes children who have or are at risk for language delays, those with developmental challenges such as autism, and those who are developing typically.*

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