

Read-Alouds: Let's Stick to the Story

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Introduction

It has been claimed that when readers interrupt stories during read-alouds to point out aspects of print, children make better gains in print awareness, and eventually read better. I question these claims and as well as the usefulness of interrupting stories in this way. Short-term gains are not evident for all aspects of print awareness; comparisons also make gains, and children exposed to print universally acquire print awareness. Also, long-term gains are small and have not been proven demonstrated for real reading for meaning. Finally, interrupting stories to reference print runs the risk of taking the focus away from the story, and disrupting the pleasure and positive impact of read-alouds, which could have negative consequences for literacy development.

The Impact of Read-Alouds

Reading aloud to children with no frills, just focusing on the story, is a highly effective way of promoting literacy. Children who are read to regularly, at home or in school, make superior gains in reading comprehension and vocabulary (Senechal, LeFebvre, Hudson, & Lawson, 1996; Bus, Van Ijzendoorn, Marinus, & Pellegrini, 1995; Blok, 1999; Denton & West, 2002; Trelease, 2006).

Hearing stories read aloud is not only beneficial, it is also pleasant. Empirical research confirms what most parents know: the vast majority of children say that they enjoy being read to (Walker & Kuerbitz, 1979; Mason & Blanton, 1971; Wells, 1985; Senechal et al. 1996).

It is therefore no surprise that research confirms that hearing and discussing stories encourages reading, which in turn promotes literacy development. The title of Brassell's paper says it all: 'Sixteen books went home tonight: Fifteen were introduced by the teacher' (Brassell, 2003).

The advantages of read-alouds also extend to second language acquisition: storybooks used in read-alouds provide a much richer source of language and cultural information than textbooks written for students of English as a foreign language (Wang & Lee, 2007).

The suggestion has been made that we can improve on reading aloud to make it even more effective: A series of studies conducted on four-year-old children reveals that if readers direct children's attention to aspects of print, temporarily interrupting the story while reading aloud, the children develop print awareness more rapidly, resulting in better literacy development.

The Results of "Interruption": Studies and some Concerns

Table 1 provides a description of three of the major studies from the series mentioned earlier (Justice & Ezell, 2000, 2002; Justice, Kaderavek, Fan, Sofka & Hunt, 2009). In these studies carried out on experimental groups, adults read to four-year-old children and interrupted the reading in order to point out aspects of print to the children, asking questions and making comments such as, "Where should I read on

this page?”, “Do you know this letter?”, or “This word is ‘danger’”. The comparison groups were read to without interrupting the reading in this way. Each group heard the same number of stories.

Table 1: Three studies of the effect of interrupting reading aloud to focus on print

Study	2000	2002	2009
Reader	parent	researcher	teacher
Size of group	one	1 to 3	class
Duration	8 weeks	8 weeks	30 weeks
Books read	8	8	30
Times read, each book	2	3	4
Sessions	16	24	120

2000: Justice and Ezell, 2000

2002: Justice and Excell, 2002

2009: Justice, Kaderavek, Fan, Sofka, & Hunt, 2009.

Table 2 given below represents the results of the three studies, presented as effect sizes, and calculated as per the procedures described by Morris (2008), which takes the pre-test into consideration (according to common practice, an effect size of .2 is considered to be small, .5 is considered to be medium, and .8 or more is considered as large).

Table 2 : Effect sizes

Measure	2000	2002	2009
Words in print (1)	1.22	1.7	
Alphabet knowledge	0.003	0.51	0.42
Word segmentation (2)	0.26		
Print recognition (3)	0.89	1.05	
Print concepts (4)	0.67	0.91	
Orientation/discrim.		0.02	
Literacy terms		0.6	
Name writing			0.39

For 1 to 4 in Table 2, see below:

- (1) knowing words are separated by spaces, (2) knowing how many words are in an utterance, (3) ability to pick out print when part of illustrations, (4) eg where title of book is located.

The experimental (interrupted) children generally did better than those whose reading was not interrupted, and in some cases the effect sizes are substantial. But there were three aspects of these results that should be noted:

- First, the impact was not seen on all measures.
- Second, the 2009 study lasted much longer, but the impact was not larger than in the previous studies, which may be due to the larger number of children being read to at the same time.
- Third, and most important, all the competencies tested appear to be acquired without instruction by all children who were exposed to print, and they were acquired quite early.

Are there many children in first grade today who do not understand that words are separated by spaces (words in print), or who cannot tell you where the title of a book is located? The concept of ‘word’ is firmly established by grade one (Knight & Fischer, 1992). Justice et al. are clearly interested in children developing these competencies early, even before starting kindergarten, an example of the current enthusiasm to get children to master “pre-literacy” skills such as phonemic awareness and print awareness early because of the belief that they will be behind forever if they do not (for counter-arguments, see Krashen & McQuillan, 2007; Krashen, 2001a, 2002, 2011).

Even if an early start were essential or even advantageous, children in the comparison groups did in fact make progress, often showing improvement in a short time span. This is confirmed in Table 3, which shows the percentage gains for both experimental and comparison groups. Note that the comparison groups do indeed improve. Note also that in many cases the experimental group scored correct only on a few items more than the comparison group, and the difference in percentage terms gained between the groups was modest.

Table 3: Raw scores, gains and percent gains for experimental and comparison groups

Justice et al, 2000	items	pre E	postE	pre C	post C	gain E	gain C	Diff	% diff
Words in print	12	3.6	7.7	3.6	4.9	4.1	1.3	2.8	23%
Alphabet knowledge	20	17	17.6	15.6	16.6	0.6	0.8	0.2	1%
Word segmentation	16	6.9	9.1	7.2	7.4	2.3	0.2	2.1	13%
Print recognition	15	1.5	7.35	1.65	6.15	5.85	4.5	1.35	9%
Print concepts	18	9.7	14.4	9.9	11.5	4.7	1.6	3.1	17%

Justice et al, 2002	items	pre E	postE	pre C	post C	gain E	gain C	Diff	% diff
Print concepts	20	8.9	11.9	9.1	11	3	1.9	1.1	5.5%
Print recognition	20	0.8	5.9	0.3	1.3	5.1	1	4.1	20.5%
Words in print	20	1.5	7.4	2	3	6	1	5	25%
Letter orientation/ discrim.	20	14.9	17.8	13.3	15.5	2.9	2.2	0.7	3.5%
Alphabet knowledge	20	6.7	10.9	6.8	7.8	4.2	1	3.2	16%
Literacy terms	20	7.6	10	7.7	8.6	2.4	0.9	1.5	7.5%

Justice et al, 2009	items	pre E	postE	pre C	post C	gain E	gain C	Diff	% diff
Alphabet knowledge	26	5.7	16.6	1.3	8.2	10.9	6.9	4	15%
Name writing	7	3	5.8	3.4	5.3	2.8	1.9	0.8	11%

preE = pretest experimental group
 postE = posttest experimental group
 preC = pretest comparison group
 postC = posttest comparison group
 gainE = gain made by experimental group
 gain C = gain made by comparison group
 diff = difference in gain scores
 % diff = diff/number of items on test

Does Interruption to Focus on Print Impact Other Aspects of Literacy?

Interruption does not improve performance in tests of sentence structure, word structure and expressive vocabulary when these tests are given immediately after the treatment (Justice et al, 2009, 2010). Piastra et al. (2012) claim,

however, that when tests are given one to two years after treatment, when the children are five to six years old, there is a significant impact on tests of letter-word identification, spelling and 'reading comprehension' (the reading comprehension test used was the Woodcock Passage Comprehension test, actually a

vocabulary and sentence completion test; children are asked “to indicate which of several pictures are related in meaning, and also to select a picture or produce a word that accurately completes a given phrase or passage.” p. 813.)

An inspection of Table 4 reveals that the mean

values for the experimental and comparison groups at the end of year 1 and year 2 are nearly identical. The differences, however, are statistically significant, and the effect sizes, while small, are positive.

Table 4: Results of post-tests given one and two years after treatment

Piastra et al al, 2012 HI-DOSE*	Items	1 yr post: E	1 yr post: C	t/p	ES
Letter-Word Identification	76	20.19 (27%)	21.19 (28%)	2.34 (.022)	0.26
Spelling	59	15.13 (26%)	15.5 (26%)	2.3 (.024)	0.21
Comprehension	47	8.68 (18%)	8.54 (18%)	2.72 (.008)	0.21
Piastra et al al, 2012 HI-DOSE*	Items	2 yr post: E	2 yr post: C	t/p	ES
Letter-Word Identification	76	32.8 (43%)	31.21 (41%)	2.34 (.022)	0.27
Spelling	59	21.23 (36%)	21.17 (36%)	3.19 (.01)	0.31
Comprehension	47	15.84 (34%)	15.64 (33%)	2.28 (.025)	0.26

*Piastra et al included both “hi-dose” (4 sessions per week with reference to print) and “low-dose” (2 sessions per week) treatments. Only hi-dose treatments are included here, as they are more comparable to treatments received by the comparison groups.

ES = effect size, calculated according to Morris (2008)

The reason for this unusual result is that Piastra et al. controlled for pre-test differences on “preschool emergent literacy skills” (p. 816), i.e. phonological awareness and alphabet knowledge. Indeed, comparisons were significantly better than experimental children in these areas. But experimentals were better on the vocabulary test,

as shown in Table 5. Had Piastra et al. controlled for vocabulary knowledge, the results would certainly have been different. (Note that the experimental group superiority on the pre-test in vocabulary is equal to the comparison group’s superiority in phonological awareness, both near $d = .25$, and is larger than the comparison group superiority in alphabet knowledge ($d = -.18$).

Table 5: Results of Pre-testsc

	n	Exp.	Comp.	ES
Phonological awareness	400	2.21 (3.36)	3.21 (4.29)	-0.26
Alphabet knowledge	400	7.82 (8.6)	9.38 (9.2)	-0.18
Vocabulary	396	92.77 (15.2)	89.08 (14.3)	0.25

ES = effect size (mean of experimental group – mean of comparison group)/pooled standard deviation.

So far, interruptions have been shown to produce only marginal long-term effects that appear on tests that do not probe real reading for meaning. Moreover, the effects are only visible when researchers control for phonological awareness and knowledge of the alphabet. Researchers did not control for vocabulary knowledge. Despite claims to the contrary, it is not clear that phonological awareness at an early age is causally related to eventual reading ability (Coles, 2000; Krashen, 2001a, 2001b, 2002).

The Disruption Factor: The Potential Danger of Interrupting Reading Aloud

Justice and Ezell (2000), provide data on the frequency of references to print. As presented in Table 6, comments about print were directed at experimental children about four times per minute (comments, questions and requests about print), while non-verbal references (mostly pointing to print) took place nearly eleven times per minute.

Table 6: References to print per minute

	Exp.	Comp.
Verbal	4.04	0.13
Nonverbal	10.71	4.33

Verbal, eg: comments and questions about print

Nonverbal, eg. tracking print, pointing to print (7.91 for experimentals compared to 3.87 for comparisons).

From Justice and Ezell, 2000, table 3

Combining verbal and non-verbal, references to print occurred for experimental group children about fifteen times a minute, or every four seconds. Verbal references occurred every fifteen seconds. The average duration of each storybook reading was between five to seven minutes (Justice & Ezell 2002, p. 21). Thus, in

each story, references to print occurred on an average of seventy-five to one hundred and five times, with verbal references taking place about twenty to twenty-eight times. In contrast, the comparison children hardly experienced any verbal comments, and non-verbal references to print were made a little more than four times a minute, an average of about twenty to twenty-eight times per story.

Justice and Ezell (2000) were aware that excessive focus on print may take away the pleasure from hearing stories: "... some parents were overzealous in their incorporation of references to print. Although parental use of these strategies resulted in improvement of children's early literacy skills, it is worth mentioning that overuse of these strategies may detract from children's enjoyment of shared storybook reading" (p. 266).

We do not know if referencing print every four seconds is excessive. There was no measure (or discussion) in any of the studies of how the children reacted to these interruptions. Nor was there any discussion, other than the brief section quoted just above, of whether focusing on aspects of print distracted the children from the stories or affected their enjoyment of the stories or interest in hearing more stories. Children's interest in stories and books is a crucial measure for literacy development, as story reading stimulates an interest in voluntary reading, and continued voluntary reading ensures continued progress in literacy development.

In other words, there is sound evidence that reading for enjoyment is the source of most of our literate competence: Those who engage in more self-selected reading develop greater reading ability, better writing style, more vocabulary, better spelling, and better ability to deal with complex grammatical structures (Krashen, 2004). There is also evidence, as noted earlier, that enjoyment of read-alouds is a

crucial step towards developing interest in books and acquiring a reading habit.

Thus, if increasing the amount of print focus does in fact ‘detract from children’s enjoyment of shared storybook reading,’ focusing more on print during read-alouds might disturb the development of literacy.

Conclusion

The gains seen in the studies reviewed here are in competencies that children develop universally even without being interrupted while hearing stories read to them. Also, a clear long-term advantage for interrupting reading with references to print has not yet been demonstrated, and even if it did result in small gains, the treatment runs the risk of disrupting the role of read-alouds in developing literacy.

Based on the series of studies described here, any pedagogical recommendations that story-readers should deliberately interrupt stories in order to reference print, is premature. Therefore, for now, it is advisable that we stick to the story when reading aloud to children.

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