

## **LABELING DURING REPEATED SHARED READING OF PRINT AND DIGITAL STORYBOOKS**

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**Abstract.** This paper examines differences and/or similarities in a mother and her 3- and 7-year old children's use of labeling across three book contexts (a traditional print book, a digital book in CD-ROM format and a digital book in video-clip format) across sessions of shared reading, and between the two age groups. The findings showed that the mother and the children used more labelling (statements and requests) in the print book context than digital book contexts. Qualitative analysis revealed that the focus of the mother and the children's talk was different in the print book context (more on illustrations) and in the digital book contexts (more on story contents). Lastly, the mother's talk greatly focused on moral lessons.

### **1. Purpose of the study**

The purpose of this study was to examine differences and/or similarities in a mother and her 3- and 7-year old children's use of labeling across three book contexts (a traditional print book, a digital book in CD-ROM format and a digital book in video-clip format) across sessions of shared reading, and between the two age groups. The research question was: Are there differences and/or similarities in the mother-child use of labeling, across the three book reading contexts, over time and between the 3- and 7-year-old?

### **2. Perspectives/Theoretical Framework**

In western societies, parent-child shared book reading is considered to contribute to children's early literacy development, particularly in terms of vocabulary and literate discourse or book language. Researchers have paid considerable attention to higher level parent-child interactions (e.g., Hammett, van Kleeck and Huberty, 2003), especially those entailing higher level cognitive processes such as association, predicting, and so forth. However, with younger children, lower level interactions such as labeling are thought to play a foundational role (e.g., Ninio and Bruner, 1978) in their language and literacy development and indeed young children engage in labeling and

commenting when they initially attempt to read books on their own, what Sulzby (1985) and others have termed *storybook reenactments* or pretend reading. Whether digital texts afford parents and children the same opportunity to engage in labeling as they tend to do in print texts is an important, but unexplored question. This exploratory study is an initial attempt to investigate similarities and differences in labeling in two mother-child dyads (a mother and her two children) in shared reading episodes across print and digital texts.

Our work is framed by a Vygotskian, social constructivist perspective that focuses on the importance of social interactions in children's cognitive and social development. Children learn about literacy through interaction with parents and significant others in their lives. Within this perspective, learning occurs in shared meaningful activities, including shared book reading. Vygotsky (1978) claimed that adults structure shared activities so that children produce more complex behaviors than they could on their own by working within children's *zone of proximal development*. That is, adults and significant others phrase questions and statements in relation to children's current knowledge, with the intent of extending children's learning a level above where they are currently functioning but not to the extent where children feel frustrated in their learning. Parents can adjust the types of interactions with children to support children's literacy knowledge, while also encouraging a higher-level of learning for children.

Also informing our work is distancing theory (Sigel, 1984; 1993) which postulates that certain events can be characterized as interposing cognitive distance between a person and an event. For example, during parent-child book sharing, the types of questions asked and statements made by parents or significant others can place greater cognitive demands on children, resulting in cognitive distancing. Low-level distancing utterances can include labeling, focusing on pictures, and repeating text, while high-level distancing utterances involve such interactions as explaining, evaluating, and extending text (e.g., van Kleeck, Gillam, Hamilton, and McGrath, 1997).

As just mentioned, much attention in the research literature in shared book reading has focused on high-level distancing strategies. However, with very young children, labeling is considered an important strategy in shared book reading and whether digital books offer the same affordances for parent child-dyads to engage in labeling is not known.

### 3. Method

This study involved a mother and her two sons from one family, living in an urban area of Western Canada. The family is middle class and has recently emigrated from Korea two months prior to the commencement of the study. They read books and participate in computer activities daily at home. The older child is seven years, three months old and the younger child is three years, nine months old. At the time of the study, neither child had any formal school experience in Canada. The seven-year-old child, however, had three years of preschool and kindergarten education, and six months of public elementary school experience before coming to Canada. The three-year-old child has had no preschool or regular schooling experience. Since the seven-year-old child has

had school experience, he is a conventional reader and writer. However, the three-year-old child has no conventional alphabetic knowledge.

Participants were provided with three tasks for their shared reading. All of the materials were provided in the participants' first language. The print version of a hardcover book had text and illustrations on each page. The second book, a CD-ROM-like digital version of a book, provides icons for each page, so readers can control the time spent there and make decisions about turning pages. The last book, a video-clip-like digital version of a book, provides icons for play, stop, forward and rewind, in order to control viewing. Because this book plays the story like a video clip, without stopping, even though it provides some icons to control each part of the story, users cannot easily control the speed. The three books were chosen based on the equivalent of the following aspects: (a) mother and children's familiar genre of the books (b) unfamiliar texts and (c) complexity of the texts.

Data for the present study were collected through a taped interview with the mother, naturalistic observations, and videotaping of book reading episodes. Four book reading sessions, one week apart, in which the mother read the three books to the three-year-old and the seven-year-old (counterbalanced) were videotaped and field notes kept of each session.

All of the mother-child interactions during the shared reading episodes were transcribed in Korean, and then translated into English. These were divided into "message units", defined as a single statement or question that is meaningful (Kontos, 1983). Each labeling event in the transcriptions was categorized as to whether it was a statement (e.g., "It's a fox") or a request ("What is this?"). Inter-rater reliability of 95% was established. The frequencies and the uses of labeling were computed and compared across texts, children's ages and across sessions.

#### **4. Findings**

Overall, the mother and the children most often used labeling, both statements and requests, in the print book context, while labeling was used least in the digital book 2 context (Table 1). For example, in the four shared reading episodes with the three-year-old, the mother made: 34 statements and 16 requests in the print book; 11 statements and 4 requests in Digital Book 1, and 3 statements and 1 request in Digital Book 2. Similarly, the three-year-old made: 24 statements and 6 requests in the print book, 10 statements and 2 requests in Digital Book 1, and no labeling in Digital Book 2. Moreover, the differences across the three contexts appeared to be greater in the mother and the three-year-old dyad than in the mother and the seven-year-old dyad, even though in both age groups, the use of labeling in both statement and request differed greatly across the three contexts.

In terms of differences in sessions over time, the mother used more labeling requests on days 1 and 2 than days 3 and 4 in the digital book 1 and 2 contexts, which was not observed in the print book context (Table 1). In the print book context, the frequencies of children's labeling statements increased over time, which was not clearly presented in the digital book 1 and 2 contexts, even though the mother's use of labeling did not show a clear trend in the print book context.

Consistent with previous research, there was relatively little labeling in the shared reading episodes with the seven-year-old. This finding is consistent with previous research (e.g., Goodsitt, Raitan, and Perlmutter, 1988). Moreover, age differences between the two age groups seemed to be the greatest in the print book context, second greatest in the digital book 1 context and the least in the digital book 2 context.

*Table 1.* Frequencies of labeling across the three contexts and over time

	Day 1	Day 2	Day 3	Day 4	Total
P-7	(3/1) 1/0	(0/1) 2/0	(0/2) 3/1	(1/2) 3/0	(4/6) 9/1
P-3	(10/4) 0/1	(3/4) 4/1	(3/3) 13/0	(18/5) 7/4	(34/16) 24/6
D1-7	(1/1) 0/0	(0/0) 0/0	(0/0) 0/0	(0/0) 1/0	(1/1) 1/0
D1-3	(3/2) 2/2	(4/2) 4/0	(4/0) 1/0	(0/0) 3/0	(11/4) 10/2
D2-7	(0/0) 0/0	(0/0) 0/0	(0/0) 0/0	(1/0) 1/0	(1/0) 1/0
D2-3	(2/1) 0/0	(0/0) 0/0	(1/0) 0/0	(0/0) 0/0	(3/1) 0/0

*Note.* P indicates print book context; D1 indicates digital book 1 context; D2 indicates digital book 2 context; 3 indicates the mother and the 3-year-old child’s interactions; 7 indicates the mother and the 7-year-old child’s interactions; the numbers inside ( ) shows the mother’s labeling (statements/requests); the numbers outside ( ) indicates child’s labeling statement/requests.

When we analyzed the data qualitatively, it appeared that the mother and the children’s talk focused more on illustrations during sharing of a traditional print book while their extra-textual talk was more focused on story content in the digital storybook 1 and 2 contexts. Differences in the focus of the mother-child talk seemed to occur according to the different affordances of the different formats of the three books. For instance, limited time provided in the digital storybook 2 context appeared to steer the mother-child talk to be more about story content than illustrations, as the mother attempted to ensure the children’s understanding of the story while watching the video-clip storybook. Moreover, as the mother-child talk was synchronized with the narration of the storybook in the Digital Book 2 context, their talk appeared to focus more on what they heard about the story rather than illustrations. It appeared that the dyads had time to focus on and talk about illustrations in the print book context, a feature not available to them with the automatic page turning in the digital book 2. In addition, some other features, such as physical accessibility and the size of screen may have been related to the verbal interactions while sharing the books. For instance, the mother-child dyads used more pointing in the print book and the pointing might have been related to the use of labeling statements and requests. Moreover, 15 inch screen size presents smaller font size of the texts in the digital books than that in the print book, which could have led to the mother and the children to focus more on listening to the stories rather than reading (or pointing to) the texts.

Much of the mother's extra-textual talk focused on moral lessons. For example, after she explained particular behaviors of the characters in the story line and/or in illustrations, then made moral evaluations of the behavior, naming it "bad" or "good". Moral lessons are an inherent part of many children's books in Korea and the mother may have been drawing on this feature of her cultural repertoire as she shared the texts with her children, which also has been shown immigrant families' book reading activities in Janes and Kermani's (2001) study. Thus, the amount of labeling in the shared book reading, as a part of extra-textual talk could have been affected by the cultural background of the participants, especially the mother.

## 5. Conclusions

Labeling in parent-child shared reading with digital storybooks is an under-researched phenomenon; this exploratory study begins to fill this gap in the literature. Although the results of this case study need to be interpreted cautiously, they suggest that print books might afford greater opportunity for labeling than do digital books. Labeling is considered especially important for young children in that it is a mechanism for helping children learn to attend to salient features of books and their world (Ninio and Bruner, 1976) and to encourage the development of word meaning (Laura, 2002). If research such as that we are about to engage in confirms that indeed the automatic page turning features of digital texts decrease or eliminate opportunities for labeling, designers and writers of digital books for young children need to make modifications to allow and encourage labeling. It might also be that reading on screen does not promote labeling in the same way as does reading print books because of tactile differences in the two media. If this is the case, it would suggest the importance for caregivers and educators to continue to make print books available, especially for young children and others who would benefit from labeling as they share books with a significant other.

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