

Chapter XVII

How Literacy Emerges from Living Books in the Digital Era: New Chances for Young Linguistically Disadvantaged Children

Marian J.A.J. Verhallen

Leiden University, The Netherlands

Adriana G. Bus

Leiden University, The Netherlands

ABSTRACT

Advanced digital storybooks offer, in addition to an oral rendition of text, the possibility of enhancing story content through the use of video. In three experiments, effects of added video with accompanying music and sound on language comprehension and language acquisition were tested in a group of second language learners from low educated families. Three questions were posed. Do video additions positively influence young children's story understanding over and above still images when listening to a storybook? How does video add to language acquisition; through added information or through the appraisal of helpfulness of the added information? Do these extra information sources benefit all young children to the same extent or especially children with insufficient prior knowledge?

INTRODUCTION

The rapid growth of new digital technology over the last few decades has enabled the use of multimedia for an ever-increasing number of people. In the Netherlands 90% of all households have a

computer at their disposal and 83% have access to Internet at home (CBS, 2007). In many other Western countries the situation will not be very different. Personal computers, digital cameras, digital music carriers, cellular phones and the Internet allow cultural exchange and virtually

instant global communication at the stroke of a key. The singular purpose of technical devices have become more fluid as new technologies have made integration of separate symbol systems like spoken and written language, music, pictures, film and sound possible. For instance, personal computers may combine text with pictures or film as well as music and sound. Most of the new media are screen media, and as larger screens with higher resolution and clearer audio become available the quality and impact of the experience may increase (Detenber & Reeves, 1996). Young children today will have spent most of their lives surrounded by these digital technologies (Prensky, 2001) and the changing technological environment will influence home practices like storybook reading (Close, 2004).

Reading picture storybooks to young children is a powerful way to enhance emergent literacy skills as it creates ample opportunities for contact with language typical of written texts (e.g., Bus, 2001; Bus, van IJzendoorn, & Pellegrini, 1995; Frijters, Barron, & Brunello, 2000; Sénéchal, LeFevre, Thomas, & Daley, 1998). Even texts for the youngest contain complex vocabulary and phrases that rarely occur in other language situations. Storybook reading therefore, has been a treasured activity between parents and young children in the majority of Western countries for a long time (Blok, 1999; Fitzgerald, Spiegel & Cunningham, 1991) and the effects of storybook reading on literacy are well researched: frequent shared reading fosters the development of language, which in turn facilitates the acquisition of literacy skills. Children, who have regularly been read to from an early age, have larger vocabularies (Sénéchal & Lefevre, 2002), become more proficient decoders, and have better reading comprehension skills (Bus, van IJzendoorn, & Pellegrini, 1995).

Technological advances change the ways in which young children experience picture storybooks; in addition to print versions, a growing number of picture storybooks have become avail-

able in digitized format on CD-ROM, DVD or video. In contrast to print versions children can access these digitized storybooks independent of adults as digitized storybooks include an oral rendition of text in addition to all the qualities of the print version such as pictures (Reinking, Labbo, & McKenna, 1997). For instance, the pages of the digitized picture storybook "Winnie the Witch" (Thomas & Gorky, 1996) resemble pages in the print version. They show a full screen picture with text. Unlike the print version the digitized version allows children to hear an oral rendition of the story text without adult mediation as often as they wish. Children can access the oral text by clicking on the mini picture of a witches' cauldron at the beginning of the printed text. In order to virtually turn the page they only need to click the corner of the screen.

Apart from spoken text, more elaborate digitized picture storybooks offer additional multimedia features like motion, music and sound effects allowing for precise coordination of visual and oral information (Calvert, Huston, Watkins, & Wright, 1982; de Jong & Bus, 2004; Neuman, 1997). The Winnie Witch CD-ROM includes two versions: a static version and a video version. The static version offers an oral rendition of text as a multimedia feature in addition to the pictures, comparable to a print version. In the video version of Winnie the Witch the pictures are similar to those in the print version but turned into a video by animating the characters and using zooms, pans and cuts. Instead of a picture of Winnie lying on the floor and looking angry, the video version shows how the witch stumbles over Wilbur, her cat, and lands on the floor while the text explains that she feels uncomfortable because she often falls over her black cat. Despite of the video additions, living storybooks on the one hand and films and cartoons on the other are not one and the same. In living storybooks text is the main source of information, unlike films and cartoons where a story is told by using visualization and dialogue. However, the video additions may be more instructive than

12 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/literacy-emerges-living-books-digital/6618

Related Content

Expanded Collaborative Learning and Concept Mapping: A Road to Empowering Students in Classrooms

Paulo Rogério Miranda Correia and Maria Elena Infante-Malachias (2010). *Handbook of Research on Collaborative Learning Using Concept Mapping* (pp. 283-300).

www.irma-international.org/chapter/expanded-collaborative-learning-concept-mapping/36300

Designing E-Learning Applications with Students: The Case of the We!Design Methodology

George N. Triantafyllakos, George E. Palaigeorgiou and Ioannis A. Tsoukalas (2010). *Affective, Interactive and Cognitive Methods for E-Learning Design: Creating an Optimal Education Experience* (pp. 138-154).

www.irma-international.org/chapter/designing-learning-applications-students/40555

Emergence of Analogies in Collaboratively Conducted Computer Simulations

Wolff-Michael Roth (2009). *Cognitive Effects of Multimedia Learning* (pp. 340-361).

www.irma-international.org/chapter/emergence-analogies-collaboratively-conducted-computer/6619

Human Cognitive Processes

Slava Kalyuga (2009). *Managing Cognitive Load in Adaptive Multimedia Learning* (pp. 1-33).

www.irma-international.org/chapter/human-cognitive-processes/25730

Teaching Critical Thinking and Team Based Concept Mapping

Dawndra Meers-Scott, LesLee Taylor and John Pelley (2010). *Handbook of Research on Collaborative Learning Using Concept Mapping* (pp. 171-186).

www.irma-international.org/chapter/teaching-critical-thinking-team-based/36295