

Sam Goes to School: Story Listening Systems in the Classroom

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Introduction

Long before children receive formal instruction in reading and writing, they participate in a world filled with language. Research in *emergent literacy* emphasizes the importance of these early experiences with oral and written language as a foundation for later literacy.

A Story Listening System (Cassell, 2004) is a computer system that is consistent with these ideas from emergent literacy and engages children in creative storytelling play with real or “virtual” peers. The goal of this research is to develop and evaluate the effect of Story Listening Systems in promoting emergent literacy activities and ultimately, literacy skills. This poster reports the results of our initial design studies with a Story Listening System called “Sam”.

Sam is a virtual child whom children (ages 4-7) interact with by telling stories and playing with real toys (Ryokai, Vaucelle et al., 2003). The Sam system has two components: a life-sized child named Sam, who is projected on a screen and a toy house with several wooden figurines (see Figure 1). Sam can both tell stories, using a recorded child’s voice, and listen to the real child’s stories, responding with appropriate feedback and short comments. Sam and the child take turns telling and listening to each other’s stories. Sam and the child can pass the figurines back and forth between their worlds by way of a magic room in the house (the attic).



Figure 1. Sam greeting and gesturing with figurine.

Design Studies and Results

A preliminary study with the Sam system showed promising results (Ryokai, Vaucelle et al., 2003). Encouraged by these, we are now undertaking a larger project to investigate ways in which Sam and other Story Listening Systems can support emergent literacy skills in formal and informal educational settings. The first questions that must be addressed concern the (1) integration of the Sam system into ongoing educational environments, and (2) what modifications to Sam are needed for it to be sustainable on an ongoing basis in these contexts.

Two design studies were conducted. One took place at a daycare center (n=16) and one at an elementary school (n=21) in a large urban setting. These settings allowed us to examine a range of ages (4-7 yrs) and classroom styles (informal vs. formal). A description of findings is available from:
<http://litd.psych.uic.edu/research/projects/story.html>

References

- Cassell, J. (2004). Towards a Model of Technology and Literacy Development: Story Listening Systems. *Journal of Applied Developmental Psychology*, 25(1), 75-105.
- Ryokai, K., C. Vaucelle, et al. (2003). Virtual Peers as Partners in Storytelling and Literacy Learning. *Journal of Computer Assisted Learning*, 19(2), 195-208.