Literature Review: Autism and Reading Strategies

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Independent Study Spring 2009
Recognizing the deficits in reading comprehension for children with autism, Gately identifies eight strategies to increase literacy skills in the classroom. These students tend to have poor silent reading skills while possessing strong fluency levels. Comprehension levels are also significantly impacted by their social interpretations of the world. These students fail to interpret various cues within writing that would lead to understanding of the written word. Issues in vocabulary, writing style, story structure and social expressions/experiences are just a few of the nuances neglected by readers with autism. Due to developmental delays, auditory processing issues and social deficits, students with autism require specialized instruction to assist with reading comprehension skills. Of all the strategies she suggests I found four to be the most practical for classroom use. Picture walks, visual maps, emotional thermometers and social stories are all best practices in autism which are known to address the visual nature of students’ learning.

Although the students in the article are higher functioning students with autism, I have seen the benefit of these strategies in my own classroom. Picture walks help the students to draw visual attention to the story and address key vocabulary. Children are able to relate to the story in seeing familiar pictures and create associations based on prior knowledge. This motivates the student by giving a frame of reference for his or her learning. Visual mapping is another prime example of a supportive strategy for these students. As students with autism benefit from visual modalities the representation of concrete or abstract ideas in a picture or model can improve learning. The third example, emotional thermometers, gives a social setting for students to recognize feelings in other people or characters. As this is an area of difficulty for students with autism it provides not only support for comprehension but also a natural learning opportunity to improve understanding of emotions. Lastly, social stories act to provide personal contexts for stories and events. By activating prior knowledge and building on personal experience students can relate to the events and characters they are reading about. In making connections and associating details with their own life, students can begin to understand and recall more of what they are reading.

The picture walk strategy is most applicable to my independent project. The icons and pictures adapted for my books will help students identify key vocabulary, characters and
attributes in each story. In relating key concepts through hands-on reading students will comprehend more of the stories they are reading. While reading each adapted storybook students will essentially complete a picture walk as they match the appropriate pictures in a story retelling.


This article presents a valid argument for an interdisciplinary approach to teaching literacy for students with autism. The important relationship between literacy skills and oral language can and should be addressed in a parallel approach between the classroom teacher and the speech language pathologist (SLP). In collaboration, the teacher and SLP can address both the academic needs for literacy and the deficits in oral language which are an identifying factor for an autism diagnosis. Just as reading and writing go hand in hand, current research is showing that oral language development and literacy skills co-exist for students with autism. In improving both sets of skills teachers and SLPs can work as an interdisciplinary team to meet unique student needs.

Lanter and Watson bring up many beneficial points which seem common sense, but are often missed by school teams. In working with students with autism, oral language (both expressive and receptive) affects every exchange and demand made at school. Students must understand what is being spoken and interpret the meaning in their minds before responding verbally. This process is extremely difficult for these exceptional students and it is no surprise that literacy would pose specific problems for these individuals. Collaboration between two professionals would certainly impact the quality of instruction and educational results.

This article supports my independent study in relating the work of SLPs with teachers. In designing my individual books I will use a program called Boardmaker which is designed for picture communication systems. SLPs work with these picture icons to teach communication skills, language rules and vocabulary for students with speech impairments. In pulling speech principles into literacy teaching my books will support an interdisciplinary approach to reading.

Adult scaffolding during repeated storybook reading has been known to support communication and expand the length of utterances in typically developing students. Bellon-Harn and Harn investigate the effects of shared, repeated storybook reading on a child with disabilities. Emily, a six year old girl with significant developmental delays, participated in a study of ten predictable books adapted with pictures for an augmentative communication device (ACD). Throughout the sessions with a therapist Emily was asked to use her ACD to respond to events and characters in the books. Icons for the books were adapted to fit her ACD and included duplicated pictures from the story book, characters, events and actions.

At the conclusion of the study therapists found that positive changes occurred in both verbalizations and communicative exchanges using the ACD. The overall number of utterances increased from baseline data and the frequency of child initiations increased throughout sessions.

This study directly correlates with the work I will be completing for my independent study. In using reproduced icons velcroed into story books I hope to increase vocabulary, picture recognition, verbal exchanges and length of utterances for students with autism. In using various books to support recognition of everyday objects and attributes (such as colors, shapes, numbers etc.) I hope to model and support the increase of appropriate utterances observed. I believe that utilizing these adapted storybooks in my classroom will produce positive changes in communication and literacy for my students just as seen in the article with Emily.


For students in school, literacy represents one of the main components of instruction. Contrary to popular belief, however, literacy includes much more than simply reading words. For students with moderate to severe disabilities a broader definition of literacy is required for instruction. While visual literacy (reading of pictures, logos, icons, and symbols) is utilized by all people, it is crucial for students with disabilities to gain functional literacy to survive in their
daily lives. Through learning to read pictures these students can develop a sense of independence required to negotiate the home, community, school, and much more.

In using a nontraditional definition of literacy researchers were able to inform functional reading for students in elementary and middle school. These students learned to identify locations in the community through logos while also offering products dispensed at each place. Although the students were not reading words, they were forced to use visual attention and memory recall in identifying the icons being presented. In only fifteen days these exceptional students expanded their vocabulary and recognition of twelve locations and their wares.

Much in the same way this study aimed at increasing literacy (including picture identification and vocabulary), my goal is to target visual literacy in my classroom. By adapting children’s books to include picture icons of colors, shapes, numbers, letters, and functional vocabulary words, I will support the use of language in hopes to increase visual literacy. I truly believe the importance of these critical skills for students with disabilities as it will improve independence levels in daily activities.


Middle school teachers of student with moderate to severe developmental disabilities worked to adapt grade level chapter books for usage within the special education curriculum. Books such as Call of the Wild, Island of the Blue Dolphins, Cheaper By the Dozen, and five others were adapted using both text and pictures. Each student was given an adapted copy for use during literacy lessons. Key vocabulary words were represented by both picture and word within the context of the story.

Results of the study yielded improvements for all participating students. Student responses increased from a baseline average of one or two to a result of eight to ten per lesson. In addition to participation, student responses increased in independence and accuracy, contributing to gains in emergent literacy skills. Students also increased accuracy in response to comprehension questions as well.
While my books will not be presented at grade level, but instead developmental level, each book will use both pictures and words to address key concepts. By identifying and matching the correct icons, students will focus on the important concepts as part of a bigger picture (or entire book). I hope to increase student engagement in literature, responsiveness during lessons, and build on basic vocabulary skills. Using Browder, Trela, and Jiminez (2007) as a model will help with constructing the design of my individual lessons.