



## ***Research on Pathways to Literacy***

Students who needed the Pathways to Literacy intervention were a small subgroup of students for whom a randomized trials experiment would not be feasible. Instead, this study was evaluated with a series of single case studies. Browder, Mims, Spooner, Ahlgrim-Delzell, and Lee (2009) used a multiple probe across participants design to evaluate methods for providing literacy instruction to three students with severe intellectual and physical disabilities. The intervention included using a team approach to apply components of Universal Design for Learning to plan literacy instruction for each student. Results indicated that all three students gained foundational literacy skills such as choosing a book, focusing on objects related to the story, or using a voice output device to complete a repeated storyline.

In a follow-up study, Mims, Browder, Baker, Lee, and Spooner (2009) used a least-to-most prompting system to teach listening comprehension during shared stories to two elementary school students with severe intellectual disability, physical disabilities, and visual impairments. A multiple probe design across materials showed that both students improved comprehension over the three books.

In a third study, Browder, Lee, and Mims (in press) used scripted literacy lessons with students with significant disabilities and visual impairment. A multiple probe design across response modes was used to evaluate the impact of individualized scripted instruction on students' level of engagement in literacy and students' abilities to answer literal comprehension questions. Results of the study showed that all three students reached the 80% mastery criteria, suggesting that individualized scripts can be effective in increasing comprehension and engagement for students with significant disabilities.



The full Pathways to Literacy curriculum package was derived from these three studies and then field tested with nine students with severe disabilities in the Charlotte Mecklenburg Schools. All nine students made progress and moved up at least one level during a school year. Two mastered the fifth level and moved into the ELSB.

### ***Other Published Studies on Literacy Learning***

Two additional studies conducted in Project RAISE explored other aspects of the story-based lesson intervention. Spooner, Rivera, Browder, Baker, and Salas (2009) considered how to make the read alouds more culturally responsive. A 14-step task analysis was taught using forward chaining with a cultural contextual story selected by the paraprofessional who was Latina. The student mastered the steps of the task analysis. Additional information from the paraprofessional described how she helped the student transition from Spanish to English in the read alouds.

Mims, Browder, and Spooner (2010) implemented a shared story with a specific focus on teaching listening comprehension. A system of least prompts intervention was evaluated via a multiple probe design across books with a concurrent replication across four students. Outcomes indicated that all four students increased the number of comprehension questions correctly answered during each book.

In a study that considered students who needed further language instruction, Hicks, Stevenson, Wood, Cooke, and Mims (in press) examined the effects of direct instruction on the acquisition of prepositions by students with moderate intellectual disabilities. A multiple baseline design across prepositions was used to evaluate the effects of the Direct Instruction intervention on two participants' comprehension of and response to locative prepositions. Results of this study showed that direct instruction was an effective method

of teaching prepositions to students in this population.

