

The Impact of "Transition 2 Literacy" Software on the Literacy Skills of Young Children with Communication Challenges

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Children with communication challenges

- Children with speech and language delays
- Children with complex communication needs
 - Autism
 - Cerebral palsy
 - Down syndrome
 - Other developmental delays
 - Multiple disabilities




How can we support literacy for children with communication challenges?

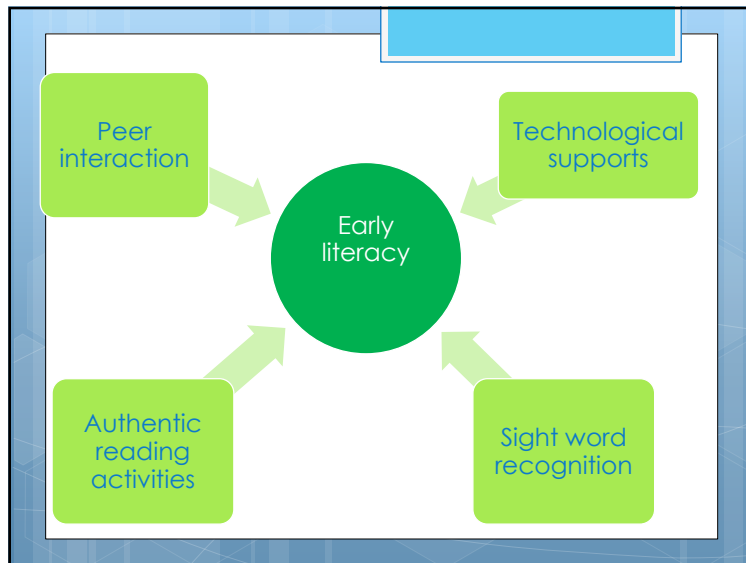
- Literacy is critical for participation in society
- Children with communication challenges are at high risk (Justice & Ezhell, 2001; Sturm & Clendon, 2004)
 - Need for organized instruction
 - Need for early language and literacy activities



What do we know so far?

- Only a small percentage of children with communication challenges acquire literacy (Mirenda, 2003)
 - Often excluded from formal and informal literacy activities (Light & McNaughton, 1993)
- Assistive technology and adapted instruction may play key roles (Light & Drager, 2007)





Why is early literacy important?

- Early literacy experiences build (NELP, 2009)
 - Receptive and expressive vocabulary
 - Print and book knowledge
 - Sight word recognition
 - Motivation to read and write



Why are peer interactions important?

- Typical developing peers serve as models
- Inclusive interactions promote acceptance
- These interactions need to be supported by adults (Kwon, Elicker, & Kontos, 2011)



Why are authentic reading activities important?

- Supports receptive and expressive communication and vocabulary development (National Early Literacy Panel, 2009)
- Encourages interactions between children and adult
- Promotes interest in books and print

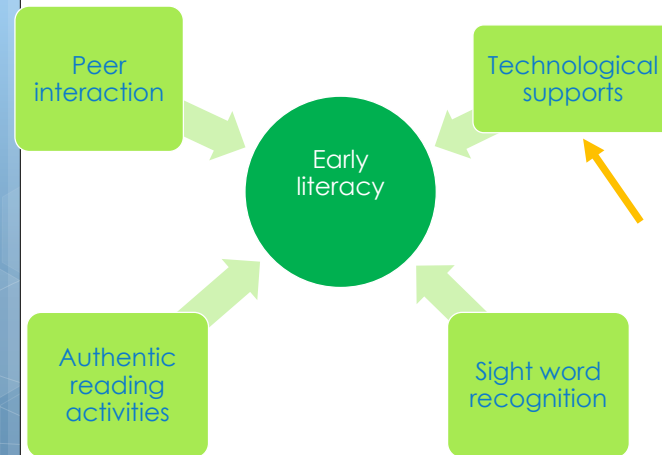
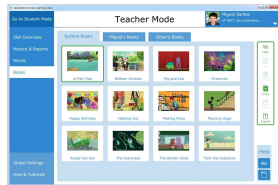
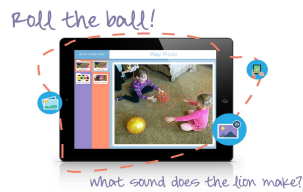


Why is sight word recognition important?

- Building sight word vocabulary allows children to read more efficiently, improving reading comprehension (Ehri, 2005)
- Past sight word recognition interventions have shown that young children with communication challenges can be effectively taught sight words in small groups (e.g., Alig-Cybrivsky et al., 1990; Ledford et al., 2008)
 - **Not** conducted with typically developing peers
 - **Not** embedded in authentic reading activities

How can technological supports help?

- New technological applications that can support communication and literacy (Light & McNaughton, 2012, 2013)
 - Supplement literacy instruction in sight words, decoding, vocabulary development
 - Support peer interaction



Transition 2 Literacy (Light, Jakobs, & McNaughton, 2016)

- Software application provided on tablet computer
- “Hotspots” in an image can be programmed so the text of word appears at the same time the word is spoken

Integrate instruction in sight word recognition into shared reading activity

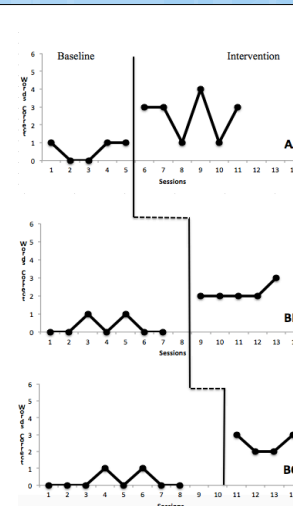


T2L Activation



Pilot Study (Boyle, McCoy, Light, & McNaughton, 2016)

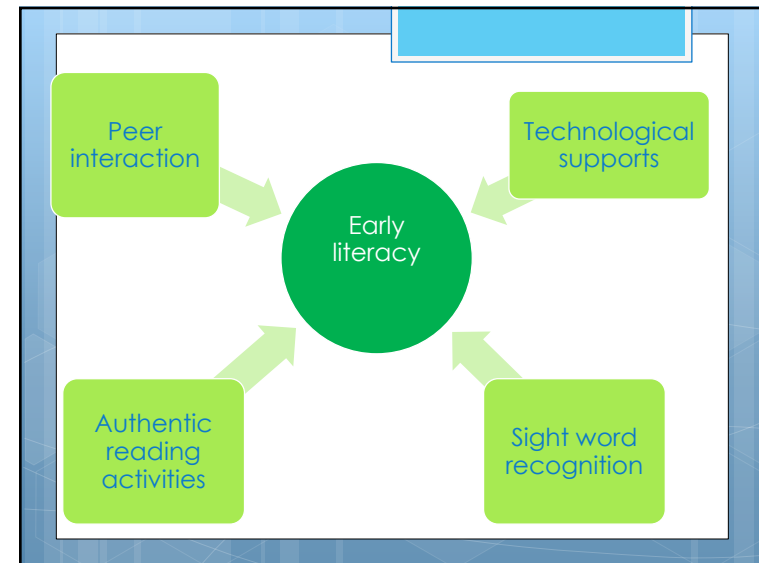
- 4 preschool participants with language delays paired with typically developing peers
- Transition 2 Literacy Software on tablet computer
 - Adapted a Pete the Cat Book
- Focused on sight word recognition within a authentic shared reading context
 - 6 of 10 words programmed with T2L



Positive impact (3 out of 4)

Social Validity

- 3 out of the 4 participants enjoyed the activity
- All the peers enjoyed it
- Teachers said the activity was useful and enjoyable
- Would like to use a similar activity in their classrooms with more children

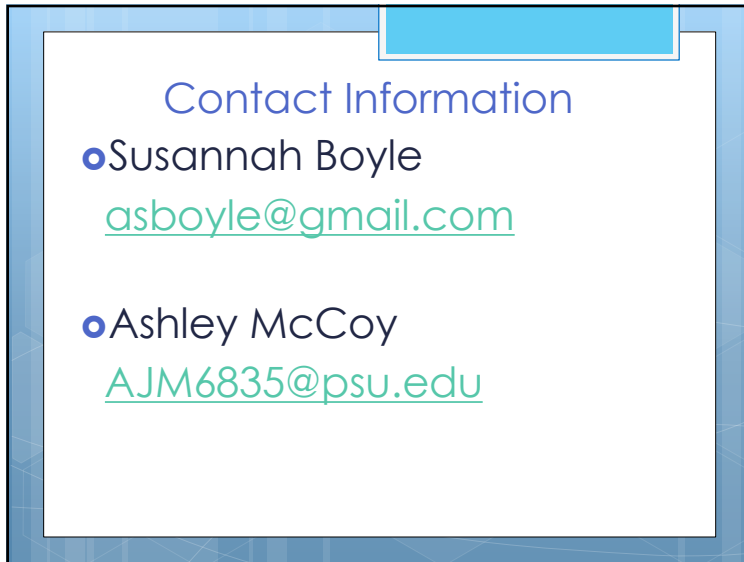


Adapting for the Classroom

- Using SnapScene by Tobii Dynavox
 - Available on Mac and Windows systems
- Creating low-tech alternatives
 - Books with file folder
 - Make and take activity

Funding Acknowledgements

This project was supported by a grant from the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR grant #90RE5017-02-01) to the Rehabilitation Engineering Research Center on Augmentative and Alternative Communication (RERC on AAC). NIDILRR is a Center within the Administration for Community Living (ACL), Department of Health and Human Services (HHS). Additional support was provided by the U.S. Department of Education grants H325D130021 and #H325D110008.



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