Storybook Reading Interventions for Children with Complex Communication Needs

By Janis Doneski-Nicol

Purpose

The purpose of this discussion is to explore the Improving Partner Application for Augmentative Communication Techniques (ImPAACT) instruction sequence and the Read, Ask, Answer, Prompt (RAAP) intervention strategy to engage children, who use AAC systems, in storybook reading to increase multi-symbol communication productions.

Summary

Current studies indicate a number of promising literacy instruction practices for children with Complex Communication Needs (CCN) who use AAC systems. The ImPAACT instruction sequence and RAAP intervention strategy stand out as emerging practices, across 4 studies and 14 children, in promoting literacy and communication opportunities for children who use AAC systems. The structure of the ImPAACT training for families and support teams as well as the strategies of RAAP promote active participation through communication in reading activities with children who use AAC.

Implications

Children with CCN often have limited interaction in storybook reading activities, which decreases language and literacy skill development opportunities. Although there are few examples of research-based literacy interventions for children with CCN, the best available evidence supports the use of ImPAACT and RAAP in supporting storybook reading and communication.

About the Author

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Introduction

Persons with complex communication needs (CCN) face barriers to using speech and/or language as their primary communication mode. Approximately 3.5 million persons in the United States do not have the speech or language skills to meet communication needs on a daily basis (Beukelman & Miranda, 2005). It is well established in the literature that individuals with CCN can develop literacy skills. However, these skills are significantly decreased with 70-90% of children with CCN lagging behind their same-aged nondisabled peers (Koppenhaver, et al., 2007).

Featured Review

Reading intervention studies for students with CCN who use alternative and augmentative communication (AAC) systems, as a mode of communication, were systematically reviewed. Eighty-two studies were identified through a systematic review process. Twenty studies met the following criteria: (1) one participant had CCN and used an AAC system; (2) participant(s) was a child, between the ages of 3 and 21; (3) the effect of a literacy intervention was examined; and (4) the article was published in English between 2004 and March 2013. The systematic review identified four studies applying the Improving Partner Application for Augmentative Communication Techniques (ImPAACT) instruction sequence and Read, Ask, Answer, Prompt (RAAP) intervention strategy to storybook reading. Given no other intervention was examined in multiple studies, these practices stand out as promising for early literacy intervention.

Description of Practices

Storybook reading and interaction within storybook reading activities are critical in the development of early foundations of literacy skills. During storybook reading and interactions children have the opportunity to interact with both books and adults. These interactions typically include turning of pages, pointing to pictures, naming pictures, and discussing content. The RAAP process provides the scaffolding structure for adults to engage children, who use AAC systems, to participate in book reading activities and to communicate through multi-symbol message productions. Multi-symbol message production is the use of two or more communication symbols (i.e., a picture symbol of Clifford the Big Red Dog with the addition of a symbol of run to communicate Clifford is running in relation

to a page in a book). The ImPAACT instructional sequence provides a sequence of instructional methods to develop an adult's skills in implementing the RAAP intervention strategy. The RAAP provides four steps to increasing interaction and multi-symbol communication productions during storybook reading. Additionally, RAAP employs a 5 second wait time between steps to allow opportunities for novel responses.

Implications for Practice

Storybook reading and embedding storybook reading activities across home and school environments are critical for all children. The ImPAACT instruction sequence and RAAP intervention strategy provide scaffolding for educators, educational assistants and parents to present storybook reading activities which have benefit for children across literacy, communication, and specifically multi-symbol productions during reading activities. Children should have multiple daily opportunities to actively participate in storybook reading activities. When children are not producing multi-symbol message productions during storybook reading with variations in message productions the concepts of RAAP should be considered.

Best Available Evidence

Given the emergence of evidence supporting ImPAACT and RAAP professionals should consider the four studies as the best evidence that is currently available regarding storybook interventions with children with CCN. Although the ImPAACT and RAAP studies produced large effects, they are limited by a small number of participants (14). In addition, researchers provided the training in all the studies. Future research should strive to increase the methodological rigor of the studies so that professionals can be more confident in the intervention effects.

RAAP

1. Read text + provide two symbol aided AAC model (i.e., provide a spoken model of a multi-symbol message and also use two symbols on the student's SGD;
2. Ask a wh-question + provide a two-symbol aided AAC model;
3. Answer the wh-question + provide a two symbol aided AAC model;
4. Provide a brief verbal prompt (e.g., "Your turn" or "Show me two").

(Binger, Kent-Walsh, Ewing & Taylor, 2010, p. 111-112)

ImPAACT

1. Pretest and solicit the mother's commitment to learning the targeted strategy.
2. Describe the communication partner interaction strategy.
3. Demonstrate use of the communication partner interaction strategy.
4. Provide verbal practice of the communication partner interaction strategy steps.
5. Practice implementing the communication partner interaction strategy in controlled contexts (i.e., in role plays with the first author).
6. Practice implementing the communication partner interaction strategy in natural contexts (i.e., in role plays with the first author).
7. Complete posttest and solicit the parent's commitment to long-term implementation of the communication partner interaction strategy.
8. Demonstrate generalized use of the communication partner interaction strategy.

(Kent-Walsh, Binger, Hasham, 2010, p. 101).

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