

Long Abstract for “Engaging Adolescent Learners With ASD and CCN in Literacy Instruction: Effects of Adapted Instruction”

Background Information:

“Literacy is a right and not a privilege: A right that has been denied to an extraordinary number of our citizens.” (Lumsford et al., 1990, p.2). People characterized as having extensive disabilities, including those who use AAC, have historically been viewed as incapable of developing literacy skills. Therefore, literacy instruction has often either been denied to them or provided in ways that did not meet their learning needs. Although a growing body of research has demonstrated that individuals with CCN can learn to read when provided with appropriate evidence-based instruction (Fallon et al., 2004; Light & McNaughton, 2013), the outcomes related to individuals with CCN obtaining even basic literacy skills remains poor (Koppenhaver & Yoder, 1993).

Typical reading programs often require an oral and/or written response during instruction and assessment (Benedek-Wood, 2010; Fallon et al., 2004; Light & McNaughton, 2009). Because learners with CCN typically demonstrate limited or no natural speech, they often experience difficulty participating in many of the reading programs frequently used in classrooms (Foley, 1993). It is often necessary to provide adaptations for learners with CCN in order to increase their participation during literacy intervention to maximize their learning (Benedek-Wood, 2010; Fallon et al., 2004; Light & McNaughton, 2009; 2013). Researchers have found that with appropriate and adapted instruction individuals with CCN can benefit from literacy instruction, and more specifically, from phonics (letter-sound correspondence) instruction (e.g., Benedek-Wood, 2010; Light & McNaughton, 2009) and sight word instruction (e.g., Browder & Xin).

Literacy instruction often begins by targeting basic reading skills to build foundational knowledge. In order to become skillful readers individuals with CCN must be able to, as Light and McNaughton (2013) stated, “Read both regular words (i.e., words that are made up of letters that can be decoded using knowledge of letter sounds and sound blending, such as *cat*) and irregular words (i.e., words that cannot be easily be decoded using knowledge of letter sounds and sound blending, such as *light*).” (p. 333) Two studies were conducted; study one focused on the beginning process of learning to read “regular words” and study two focused on reading irregular words or high frequency/motivating words by sight. Sight word reading is one way that an individual can begin to build word recognition skills and begin to understand the benefits of literacy. Yet, instruction in sight word recognition should supplement, not replace, instruction in phonic based approaches. As Browder and colleagues (2006) concluded, literacy intervention is most effective if sight word instruction is paired with instruction in phonics. Thus the results of adapted evidence-based phonics instruction (study 1) and sight word instruction (study 2) for individuals with severe disabilities, ASD, and CCN will be presented.

Aim:

Two studies were conducted to investigate the impact of adapted literacy instruction on the acquisition of LSCs and sight words, by adolescent learners with severe disabilities, ASD, and CCN, who have limited LSC and sight word knowledge (less than five LSCs and sight words). Specifically, the primary research question for Study 1 was: What is the effect of adapted instruction on the acquisition and maintenance of letter-sound correspondence skills by pre-adolescents and adolescents with complex communication needs and autism spectrum disorder? The primary research question for Study 2 was: What is the effect of adapted instruction on the acquisition, generalization, and maintenance of sight words by pre-adolescents and adolescents with complex communication needs and autism spectrum disorders? In addition, social validation information regarding the effectiveness and acceptability of the interventions will be shared.

Method:

Two studies were conducted using a single subject multiple probe design, across behaviors (i.e., letter sound sets or sight words), to evaluate the effectiveness of adapted literacy instruction. The independent variable for the studies was the adapted instruction. This design required systematic introduction of the intervention (adapted literacy instruction) on three or more behaviors (i.e., the letter sound sets or sight words) with the same subject, in the same setting. An across behaviors design was selected as the adapted instruction was expected to produce a similar and independent effect on each of the dependent variables (letter sound sets/sight words).

Participants that met the following selection criteria were included in the study: (a) had a diagnosis of ASD, (b) were at least seven years of age, (c) presented with speech and communication skills that did not meet all of their daily communication needs, (d) were symbolic communicators with use of at least ten words/signs/picture icons expressively, (e) demonstrated unimpaired or corrected vision and hearing per IEP, and, (f) identified fewer than 10 letter sounds correspondences and sight words.

Results:

These studies contribute new research to a limited research base related to reading instruction for learners with severe disabilities, ASD, and CCN. All three participants made progress from baseline. These studies support positive outcomes of adapted evidence-based instruction for older learners who are currently struggling to make progress with their literacy goals or no longer participating in literacy instruction due to lack of progress. Learners in these studies were able to identify over 10 LSCs and 10 sight words, post instruction; more than doubling their previous current levels of performance in a few months.

Conclusion:

Teaching literacy skills is one of the most empowering things that we can do for individuals with CCN. Overall, these two studies suggests that evidence-based,

adapted instructional techniques can be effective in teaching LSCs and sight words as a first step toward the development of literacy skills- even for older individuals with severe disabilities, ASD, CCN.

Research results from both studies will be presented along with videotaped case examples to illustrate the literacy intervention and to demonstrate the effects with individuals with ASD and CCN. The session will provide professionals and families with effective evidence-based literacy intervention ideas and adaptations in order to support individuals with CCN in participation in literacy instruction as well as maximized outcomes.

Declaration of Interest: The authors have no financial or other interest in objects or entities mentioned in the paper.

References:

- Browder, D. M., Courtade-Little, G., Wakeman, S., & Rickelman, R. J. (2006). From sight words to emerging literacy. *DM Browder & F. Spooner (2006). Teaching Language Arts, Math, & Science to Students with Significant Cognitive Disabilities. Baltimore: Paul H. Brookes.*
- Browder, D. M., & Xin, Y. P. (1998). A meta-analysis and review of sight word research and its implications for teaching functional reading to individuals with moderate and severe disabilities. *The Journal of Special Education, 32*(3), 130-153.
- Fallon, K. A., Light, J., McNaughton, D., Drager, K., & Hammer, C. (2004). The effects of direct instruction on the single-word reading skills of children who require augmentative and alternative communication. *Journal of Speech, Language, and Hearing Research, 47*(6), 1424-1439.
- Foley, B. E. (1993). The development of literacy in individuals with severe congenital speech and motor impairments. *Topics in language disorders, 13*(2), 16-32.
- Koppenhaver, D. A., & Yoder, D. E. (1993). Classroom literacy instruction for children with severe speech and physical impairments (SSPI): What is and what might be. *Topics in Language Disorders, 13*(2), 1-15.
- Light, J., & McNaughton, D. (2009). Addressing the literacy demands of the curriculum for conventional and more advanced readers and writers who require AAC. *Practically speaking: Language, literacy, and academic development for students with AAC needs, 217-246.*

- Light, J., & McNaughton, D. (2013). Putting people first: Re-thinking the role of technology in augmentative and alternative communication intervention. *Augmentative and Alternative Communication, 29*(4), 299-309.
- Lumsford, A. A., Moglen, H., & Slevin, J. (1990). *The right to literacy*. New York: The Modern Language Association of America.
- Wood, E. B. (2010). *Effects of adapted instruction on the acquisition of letter-sound correspondences by young children with autism spectrum disorders and complex communication needs* (Doctoral dissertation, The Pennsylvania State University).



The U.S. Society of Augmentative & Alternative Communication is approved by the Continuing Education Board of the American Speech-Language-Hearing Association (ASHA) to provide continuing education activities in speech language pathology and audiology. See course information for number of ASHA CEUs, instructional level and content area. ASHA CE Provider approval does not imply endorsement of course content, specific products or clinical procedures.



Program Planner/Instructional Personnel Relationship Disclosure Form

In compliance with American Speech-Language Hearing Association’s Continuing Education Board’s Requirements, ISAAC Conference 2016 requires program planners and instructional personnel to disclose information regarding any relevant financial and non-financial relationships related to course content prior to and during course planning.

Based on the information provided, ISAAC Conference 2016 will engage the program planner /instructional personnel in a guided interview process which seeks to understand how the relevant financial or nonfinancial relationship may influence the content of the course.

Program Planner/Instructional Personnel’s Name:

Course Title:

HIPAA REQUIREMENTS

To comply with the Health Insurance Portability and Accountability Act (HIPAA), we ask that all program planners and instructional personnel insure the privacy of their patients/clients by refraining from using names, photographs, or other patient/client identifiers in course materials without the patient’s/client’s knowledge and written authorization.

I am in compliance with these policies: (INITIAL HERE)

Relevant financial relationships are those relationships in which the individual benefits by receiving a salary, royalty, intellectual property rights, gift, speaking fee, consulting fee, honoraria, ownership interest (e.g., stocks, stock options, or other ownership interest, excluding diversified mutual funds), or other financial benefit. Financial relationships can also include “contracted research” where the institution gets the grant and manages the funds and the individual is the principal or named investigator on the grant.

Do you have relevant financial relationships to disclose?
 No Yes (if yes complete Financial Relationship Disclosure Form)

Relevant non-financial relationships are those relationships that might bias an individual including any personal, professional, political, institutional, religious or other relationship. May also include personal interest or cultural bias.

Do you have relevant non-financial relationships to disclose?
 No Yes (if yes complete Non-Financial Relationship Disclosure Form)

I attest that the information in this disclosure is accurate at the time of completion and I agree to notify ISAAC Conference 2016 (conference2016@isaac-online.org) of any changes to this information between now and the scheduled presentation date. **I also understand that all completed Disclosure Forms must be incorporated within my paper proposal, as part of my Long or Extended abstract upload to the ISAAC Conference 2016 paper submission system.**

Signature *Jessica G. Caron*

Date



The U.S. Society of Augmentative & Alternative Communication is approved by the Continuing Education Board of the American Speech-Language-Hearing Association (ASHA) to provide continuing education activities in speech-language pathology and audiology. See course information for number of ASHA CEUs, instructional level and content area. ASHA CE Provider approval does not imply endorsement of course content, specific products or clinical procedures.



Financial Relationship Disclosure Form

Copy this page as many times as you need to complete information regarding **each** of your relevant financial relationships. Program Planners/Instructional personnel have a **relevant** financial relationship if that relationship could influence the information presented in the course and could be perceived as a conflict of interest by learners.

Planner/Presenter name:

Financial relationship with (name of Company/Organization):

Date form completed:

What was received? (Check all that apply)

- | | |
|---|--|
| <input type="checkbox"/> Salary | <input type="checkbox"/> In kind |
| <input type="checkbox"/> Consulting fee | <input type="checkbox"/> Grants |
| <input type="checkbox"/> Intellectual property rights | <input type="checkbox"/> Gift |
| <input type="checkbox"/> Speaking fee | <input type="checkbox"/> Ownership interest (e.g., stocks, stock options or other ownership interest excluding diversified mutual funds) |
| <input type="checkbox"/> Royalty | |
| <input type="checkbox"/> Honoraria | |
| <input type="checkbox"/> Hold patent on equipment | |
| <input type="checkbox"/> Other financial benefit (please describe): | <input type="text"/> |

For what role? (Check all that apply)

- Employment
- Management position
- Teaching and speaking
- Board membership
- Ownership
- Consulting
- Membership on advisory committee or review panels
- Independent contractor (including contracted research)
- Other activities (please describe):



The U.S. Society of Augmentative & Alternative Communication is approved by the Continuing Education Board of the American Speech-Language-Hearing Association (ASHA) to provide continuing education activities in speech-language pathology and audiology. See course information for number of ASHA CEUs, instructional level and content area. ASHA CE Provider approval does not imply endorsement of course content, specific products or clinical procedures.



Non-Financial Relationship Disclosure Form

Copy this page as many times as you need to complete information regarding **each** of your relevant **non-financial relationships**. Program Planners/instructional personnel have a **relevant** non-financial relationship if that relationship could influence the information presented in the course and could be perceived as a conflict of interest by learners.

Planner/Presenter name:

Non-financial relationship with (name of Company/Organization/Institution):

Date form completed:

What is the nature of the non-financial relationship? (Check and complete all that apply)

- Personal, please describe:
- Professional, please describe:
- Political, please describe:
- Institutional, please describe:
- Religious, please describe:
- Personal interest, please describe:
- Bias, please describe:
- Other relationship, please describe:

For what role?

- Volunteer employment
- Volunteer teaching and speaking
- Board membership
- Volunteer consulting
- Volunteer membership on advisory committee or review panels
- Other volunteer activities (please describe):