Effects of Online Training on Pre-service SLP Adapted Literacy Instruction

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INTRODUCTION

- No single intervention will have as dramatic effects on a student’s future as a solid foundation in literacy (Hebler, Fredrick, Tumski, & Brinton, 2002).
- Currently, 90% of individuals with CCN enter adulthood without acquiring functional literacy skills (Poley & Wolter, 2010).
- SLPs have specialized knowledge that can be used to provide the help and adaptations for students with CCN in order to build vital language, communication and literacy skills and support the maximization of communication and communicative outcomes.
- Most SLPs receive limited or no pre-service training in AAC, as well as literacy-related to AAC.

AIM

- Effectively translating the current positive findings of adapted literacy instruction with researchers. In SLPs, could potentially increase quality literacy opportunities and access to adapted instruction, as well as change outcomes for individuals with CCN.
- 1. The project aimed to develop and evaluate an online training to teach pre-service SLPs the provision of adapted letter-sound correspondence (SLC) instructional lesson.
- 2. The project aimed to use findings to continue to refine and develop future in-services and on-line training modules for common services providers (e.g., SLPs, teachers) – moving toward translation of the provision of evidence-based adapted literacy instruction away from researchers.

METHOD

- Design:
  - Group 1: Role play (pretend), training, role play (pretend).
  - Group 2: Role play (pretend), role play (pretend), training, role play (pretend).
- Participants:
  - 40 pre-service SLPs
  - All students were enrolled in an undergraduate AAC course at the time of the study.
  - No students had experience related to the provision of adapted instruction.
  - 12 students had worked with an individual who use AAC (e.g., personal care assistant, camp).
- Materials:
  - (a) ALL SLC Protocol: The protocol, developed by Light and McNaughton (2009), outlines explicit instruction procedures using an introduction, model, guided practice, independent practice format.
  - (b) online training: It incorporates research in partner training (e.g., Ellis et al., 1993), literacy instruction (e.g., Light & McNaughton, 2010), and principles of e-learning (e.g., Clark, 2014) in order to assist common service providers in acquiring the steps to implement an evidence-based SLC Protocol.
  - (c) low-tech materials: Letter cards will be created, adapted from the materials developed by Light and McNaughton (2009), including a 2 x 2-in laminated card per targeted letter sound.
- Procedures & Data Collection:
  - Simulated role plays: All role plays were video-taped.
  - Following first role play for Group 1 (a.k.a., Time 1) and the second role play for Group 2, each pre-service SLP was given instructions to access the online training site.
  - After completion of the interaction, the recordings were labeled with a code and uploaded to a digital storage system for coding.
- Measures & Analysis:
  - Dependent Variable
    - LSC Scoring Rubric: measured the participants’ use of the component skills in each strategy step, a scoring rubric was used which was adapted from past research investigating the use of the ALL SLC Protocol.
  - Coding Procedures: Graduate students were recruited to complete the coding
  - Analysis
    - Independent t-tests & Descriptive statistics

RESULTS

- Group 1 averaged 2.8 correct behaviors prior to training (Time 1) and 4.2 after the training (Time 2); gain of 46.3 after the online training.
- Group 2 averaged 1.84 and 1.74 correct behaviors prior to training (Time 1 and 2 respectively). After the training Group 2 averaged 4.73, correct for a gain of 12.92 (Time 2 to Time 1).
- Group mean differences were compared and results were statistically significant, t(21) = 3.17, p < .01, indicating effectiveness of training for the experimental group (Group 2).\n
DISCUSSION & FUTURE RESEARCH

SLPs report the need for training in order to effectively implement adapted literacy instruction. This training can start at the pre-service level. Online trainings, uses effective and evidence-based strategies, can positively change behavior, leading towards more optimal implementation of interventions, as well as contributing towards closing the research-to-practice gap. Analysis of the individual level indicate that the majority of errors occurred during the guided practice portion of lesson implementation.

Future research should investigate the most effective modes (e.g., in-person, online) of training, as well as training components (e.g., instructional methods, targets, and intensity).

Future research should move beyond simulated role plays, to implementation with individuals with CCN, by both pre- and in-service SLPs.

OTHER RESOURCES

- http://aec.psu.edu
- http://speechliteracy.psu.edu
- https://pennsac.psu.edu/home/2015-
- https://aec-learning-center.moodle.psu.edu

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