Story Time Language Program Summary

2012-2013

Principal Investigator:
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Child Language Intervention Program
Vanderbilt University
Researcher Biography

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Dr. Camarata joined the Vanderbilt faculty as an Assistant Professor of Hearing & Speech Sciences in 1990. He studies the assessment and treatment of speech, language and social skills in Down Syndrome, autism, and other developmental disabilities. He also studies the neural basis of typical and atypical learning in these populations. He is the Chair of the NIH study section on Child Psychopathology and Developmental Disabilities (CPDD) and is a fellow of the American Speech-Language-Hearing Association.

Education
BA and MA San Diego State University
PhD Purdue University

Postgraduate Training
Child Language Laboratory, University of Arizona
Autism Research Center, University of California, Santa Barbara
Cognitive Sciences, University of California, San Diego

Areas of Clinical Expertise
Autism, Down Syndrome, Speech and Language Disorders in Children

Research interests
Assessment and Treatment of Developmental Disabilities, Neuroimaging of Language and Learning in Children with Disabilities
Method and Process

Children with ASD often have difficulty learning to understand (comprehend) what is said to them. But, most current intervention programs are extensively, if not exclusively focused on teaching expressive skills. The purpose of this project is to provide an intervention program that integrates both expressive and receptive intervention for children with ASD. The goal of the project in MNPS is to determine whether speech pathologists in the schools can readily deliver this kind of intervention to children with ASD.

In order to examine this question, we proposed to teach speech pathologist(s) from three schools how to implement the integrated program. Last year, we implemented this program with one speech pathologist at one elementary school within MNPS. Our goal this year was to complete the remaining two speech pathologists. The goals of the intervention (receptive and expressive vocabulary) are normally a regular part of the instruction for children with ASD, so the training did not augment services already being provided. The speech pathologist provided feedback regarding the training process as well as her clinician impressions regarding the three participants that were involved in this study.

Explanation of Results

Individual Goal Results

Prior to the first treatment phase and after each additional treatment phase, generalization phases that occurred. These included cross modal generalization (blue data point), real picture generalization (red data point) and 3 general probe phases (yellow data point). Cross modal generalization refers to the individual goal being assessed through another modality. For example, the receptive target words will be assessment expressively. The real picture generalization refers to the individual goals being assessed through real pictures of the target words as opposed to clip art stimuli that are used during the treatment phase. The general probe phase refers to the individual goals being assessed to rate maintenance. Henceforth, the stimuli used during this phase were the same stimuli used as the training tool during the treatment phase. The participants’ graphs below display baseline, treatment (green data points) and generalization data. The generalization data was graphed to note any change and to document maintenance. Please note that the generalization phase was administered by a CLIP staff representative. Attached are updated graphs from two additional participants (IES 38, 41) as well as the graphs from the corresponding speech language pathologists.
Participant Individual Data Graphs

Figure 1
Figure 2
Feasibility Results

The feasibility portion of this project included the speech language pathologist conducting this study within a group setting and implementing the guidelines outlined in the *Story Time Language Program Manual*. Inter Observer Agreement and Procedural Fidelity were completed for each treatment session to insure the accurate data documentation as well as appropriate procedure implementation. The clinician graphs below display procedural fidelity percentages for the daily probes, story and play. Once the clinician reached 80% accuracy over 3 consecutive sessions, no corrective feedback was provided. Maintenance will be documented to assess the feasibility of implementing the procedures included in the *Story Time Language Program*.

![Graphs showing procedural fidelity percentages for daily probes, story and play.](image)

*Figure 3*
Figure 4
Figure 5
Figures 6
Clinician Questionnaire

Feedback Form for Clinicians

To improve our research, we would appreciate your feedback about the story-play intervention for vocabulary. Please fill out this survey and written response on this form. Thank You for Your Help!

1. Rate the extent to which the intervention was feasible in your school.

   Extremely Feasible  Moderately Feasible  Feasible but Difficult  Not at All Possible

2. Rate how easy the intervention is to learn to use.

   Extremely Easy  Moderately Easy  Not Very Easy  Not at All Easy

3. Rate how effective the training was in learning to use the intervention.

   Extremely Effective  Moderately Effective  Not Very Effective  Not at All Effective

4. Rate how effective the feedback was in learning to use the intervention.

   Extremely Effective  Moderately Effective  Not Very Effective  Not at All Effective

5. What suggestions do you have about the intervention to make it useful to other therapists?

   Create stories for functional vocabulary for use with low incidence students who are virtually nonverbal (shoes, socks, toothbrush, etc)

6. What would increase the effectiveness or acceptability of the training on how to use the intervention?

   Write on the data sheet "Do not provide feedback to students during first probe. Provide corrective feedback for subsequent probes"

7. What suggestions do you have to help us get other therapists to use the intervention?

   Make it affordable

8. What was difficult about using the intervention in your school?

   ☐
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   - [ ] Extremely Effective
   - [ ] Moderately Effective
   - [ ] Not Very Effective
   - [ ] Not at All Effective

4. Rate how effective the feedback was in learning to use the intervention.
   - [ ] Extremely Effective
   - [ ] Moderately Effective
   - [ ] Not Very Effective
   - [ ] Not at All Effective

5. What suggestions do you have about the intervention to make it useful to other therapists?
   - It was useful, but the students were tired of the story/play after a few times.

6. What would increase the effectiveness or acceptability of the training on how to use the intervention?
   - The training was wonderful.

7. What suggestions do you have to help us get other therapists to use the intervention?
   - Data/info on effectiveness. A link to the curriculum.

8. What was difficult about using the intervention in your school?
   - Not having a link to what was happening in the classroom. Only targeting a couple vocab words for so long. I am used to integrating several targets/goals into a session. I felt like I was limiting what I was doing with the student.

Form 2