

# Impact of a Peer Training on Judgments of Communication from Middle-School Students with Multiple Disabilities

Christine Holyfield<sup>a</sup>, Janice Light<sup>b</sup>, Kathryn Drager<sup>b</sup>, David McNaughton<sup>b</sup>,  
& Jessica Gormley<sup>b</sup>  
University of Arkansas<sup>a</sup>, Penn State University<sup>b</sup>

## Introduction

- Some school-aged individuals with multiple disabilities (MD) are in the beginning stages of language development and communicate primarily through presymbolic behaviors such as gestures, vocalizations, and facial expressions<sup>1,2,3</sup>
- These behaviors are largely idiosyncratic and can be subtle<sup>2</sup>
- Communication partners, therefore, often have difficulty in recognizing these behaviors when they do occur<sup>1,3</sup>
- And, when these behaviors are recognized, communication partners interpret them inconsistently and assign a range of meanings to them<sup>4</sup>
- This is problematic from a language development standpoint, as symbolic language stems from consistent partner responses to presymbolic communicative behaviors<sup>2</sup>
- The current study addressed the following question: *What is the effect of a peer training on the frequency of behaviors from middle schoolers with MD correctly interpreted by typically-developing middle school peers?*

## Method

- A pretest-posttest control group design<sup>4</sup> was used to evaluate the impact of the training
- 24 typically-developing middle schoolers participated (randomly assigned to the experimental or control group)
- In the pre- and post-tests, participants viewed 18 video clips (6 from each participant), and for each clip judged:
  - (a) Was the behavior communicative?
  - (b) If so, what was being communicated?
- Between pre- and post-tests, participants in the experimental group participated in a training in which they:
  - Viewed video behaviors on a video visual scene display AAC app (under beta testing),
  - Viewed models depicting the interventionist interpreting behaviors and assigning a linguistic map to them,
  - Practiced interpreting the behaviors by programming the linguistic map of behaviors as hotspots onto the video visual scene displays, and
  - Received feedback from the interventionist
- A one-way analysis of variance (ANOVA)<sup>5</sup> was used to compare the gain scores of participants in the experimental and control groups

## Results

### Pretest

- Consistent with previous research with professionals, the peers in both the experimental and control groups infrequently, inaccurately, and inconsistently interpreted the communicative behavior of the three students (mean = 52.8%)
- Much of the communicative behavior was not interpreted as communicative at all
- Those behaviors that were interpreted as communicative, were interpreted inaccurately (e.g., "I don't want it" was interpreted as "I want it" or "Ball" was interpreted as "Bye")

### Posttest

- Following the intervention, each participant in the experimental group experienced marked gains in their interpretation scores (mean = 52.8%)
- Participants in the control group did not experience gains (mean = -3.3%)
- The difference between these groups was significant ( $F(1,22)=78.91, p<0.001$ )

## Discussion

- The idiosyncratic, presymbolic communicative behavior of individuals with MD is often difficult for communication partners, including peers, to recognize and interpret<sup>1</sup>
- This lack of consistent interpretation translates to a lack of consistent responsivity, and limiting opportunities for the development of symbolic language<sup>2</sup>
- However, the current study shows that, through a short training, peers can be taught to accurately interpret the behavior of students with MD
- The training from the current study utilized an AAC app with video as well as modeling, opportunities for guided practice, and feedback; these may be important factors in peer training effectiveness
- Future research should explore the impact of communication partner trainings on the real-world interactions between communication partners and individuals with MD and any subsequent language gains from the individuals with MD

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