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

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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.
• These behaviors are largely idiosyncratic and can be subtle.
• Communication partners, therefore, often have difficulty in recognizing these behaviors when they do occur.
• And, when these behaviors are recognized, communication partners interpret them inconsistently and assign a range of meanings to them.
• This is problematic from a language development standpoint, as symbolic language stems from consistent partner responses to presymbolic communicative behaviors.
• 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 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) 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.
• This lack of consistent interpretation translates to a lack of consistent responsivity, and limiting opportunities for the development of symbolic language.
• 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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References