

**Functional Communication Skills for Students  
With Autism Spectrum Disorder**

## **Abstract**

Children without functional verbal communication will communicate in other ways to get their wants and needs addressed. Very often, out of frustration, they communicate through maladaptive behaviors. The purpose of this study is to explore the effects of the introduction of a picture exchange system on the maladaptive behaviors of nonverbal and minimally verbal students.

## **Statement of the Problem**

As the number of children diagnosed with Autism Spectrum Disorder (ASD) continues to grow, strategies to best teach them to their strengths need to be addressed, researched and implemented. In addition to this number, more and more children are being expelled from childcare because of behavior concerns. This leads parents to begin to evaluate their children to see what interventions would be appropriate. These early behavioral concerns, if unaddressed, may last until adulthood.

Additionally, in Florida, many students come to school being culturally and linguistically diverse (CLD) but receive instruction in English. Early intervention has been found to be a key component in improving the educational outcomes for both these populations of students. Worthington and colleagues (2011) report that Head Start teachers habitually used (picture) icons from the Boardmaker software program when teaching their English Language Learners (ELLs) and when communicating with parents of ELLs. Best practices for educating diverse student populations include using visuals, which has the added benefit of being appropriate for young, pre-reading students in early intervention programs with varying exceptionalities. The

National Autism Center suggests that using a picture exchange communication system (PECS) as is a promising practice.

### **Purpose and Research Question**

The purpose of this action research study is to determine whether using a teacher-created PECS in a special education prekindergarten program will benefit the communication and behavior of students who are developmentally delayed, especially those who are non-verbal. The following research question will be examined: What is the effect of PECS on nonverbal prekindergarten students?

### **Literature Review**

Many young children with communication delays also show behavioral concerns (Carr & Felce, 2007). Studies state that early childhood behavior problems predict decreased academic success along with poor social behavior later in life (Lambert & Bloom, 2012; Durand & Moscovitz, 2015). Durand and Moscovitz (2015) observed that functional communication training (FCT) can reduce interfering behaviors. In reviewing the literature, one avenue to provide a functional communication method for children who are non-verbal is a system known as the Picture Exchange Communication System (PECS). It consists of an Applied Behavior Analysis (ABA) based system of picture exchanges. Numerous studies (e.g. Carr & Felce, 2007; Cihak, Smith, Cornett, & Coleman, 2012; Lerna, Esposito, Conson, Russo & Massagli, 2015; Schreibman & Stahmer, 2014) have shown this system developed by Andrew F. Bondy and Lori Frost in 1994 to be effective as an augmentative communication system. PECS uses the ABA principle of reinforcement (Lerna et al., 2012).

For ASD students, PECS has advantages that work well with their strengths, delivering a powerful reinforcer immediately for a correct transfer. No eye contact or speaking is required.

(Yoder & Lieberman, 2009). PECS also uses visuals which is a preferred modality of many students with ASD.

The literature review supports the proposed action research that will explore whether using PECS with non-verbal and low verbal students will ameliorate problem behaviors in a pre-kindergarten special education classroom.

### **Research Methodology**

This action research project will take place in a Palm Beach County public school in a pre-k special education classroom. The students who will participate are student in the Full Day pre-k program, ages 3 years, 6 months to 5 years, 1 month. All have been identified as Developmentally Delayed and most have Language Impairment as a secondary exceptionality. The special education classroom teacher will collect data before, during and after the implementation of the picture exchange system. The special education classroom teacher will teach the DLM and Conscious Discipline curriculum while implementing the picture exchange system. Data will be collected on the following variables: (a) students' level of PECS mastery, (b) the number of incidences of maladaptive behavior, and (c) parent survey responses on observation of behaviors pre- and post- intervention.

### **Results**

Research findings will be available in time for the conference and will be presented.

### **Implications**

A lack of a functional means of communication has far-reaching implications for young children with developmental delays who are also non-verbal or minimally verbal. Children may resort to maladaptive behaviors to functionally communicate their needs and wants. A low-cost,

applied behavior analysis-based method of a picture exchange communication system can provide these children with a means to communicate other than the use of problem behaviors. Many students have responded to this system of communication, indicating that this can be a successful intervention for these children.

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