



# The Effects of the Picture Exchange Communication System on Students with Autism

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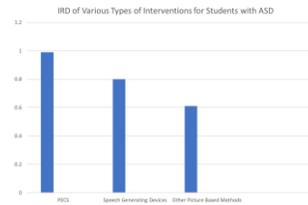
**Hypothesis:** We hypothesize that the Picture Exchange Communication System approach to teaching students with autism communication skills will be effective.

**Procedure:** Our task was to explore the efficacy of the Picture Exchange Communication System (PECS) approach to teaching communication strategies to students with communication deficits. We focused primarily on the effect of PECS on students with autism, and after some research revealed to us what the PECS program entailed, we hypothesized that the PECS program would be effective and beneficial for students with autism. We explored the methodology that many implementers of the program used to train students on PECS, and through our research we discovered four compelling case studies. Each of these case studies proved our hypothesis to be correct.

**Autism Spectrum Disorder (ASD):** ASD is defined as a neurodevelopmental disorder that is characterized by limitations in social communication and interactions with recurring patterns of behaviors, interests, or activities. ASD is classified as a very unique group of individuals. Every case varies slightly because there is no single cause of autism. Over the last few years, autism has increased significantly because we have a better understanding of the disorder. ASD is normally characterized by a triad of deficits: communication, socialization, and repetitive behaviors, interests, and activities.

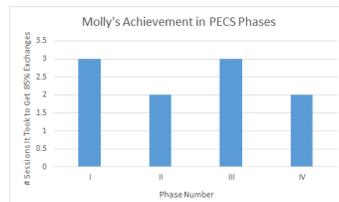
#### Case Study 1:

This study showcased a variety of students with ASD, some with more exceptionalities than solely Autism. The PECS was explored as well as other strategies to help improve communication among students with ASD. This study showed that PECS had the highest improvement rate difference. This means that PECS was the most successful for students with ASD when compared to other practices to implement communication and socialization.



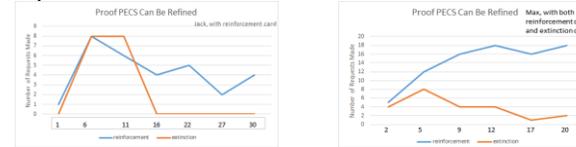
#### Case Study 3:

7-year-old Molly who is diagnosed with multiple disorders including blindness and ASD is trained to use PECS to help her become a better communicator. Being that Molly is blind, the PECS program had to be adapted to fit her needs. By attaching Braille to objects or pieces of objects of Molly's affection, she was able to "see" pictures by reading the Braille and she learned to communicate using the PECS very quickly. Below, her mastery of the phases is shown.



#### Case Study 2:

Two adolescent males diagnosed with ASD and deficits in communication, who are either masters or nearly masters of PECS as their primary means of communication, are presented reinforcement/extinction cards. By showing these students additional cards, which function just like the pictures they are already accustomed to using, these students were able to refine their skills and become more effective communicators with the help of an aide who indicates appropriate timing of requests.



#### Case Study 4:

This study is based on a 10 year old boy, C.Z., who is deaf and has ASD. This study follows the basic steps of PECS with the added sign language component. C.Z. goes through six phases of acquisition to master the Picture Exchange Communication System (PECS) to be able to communicate. The results of his mastery are shown by the number of sessions it takes him to master the tasks. By the fifth phases, C.Z. is mastering the required skill in 0.5 sessions.



**PECS:** Picture Exchange Communication System (PECS) are interventions designed to help students with intellectual disabilities and deficits in communication become effective communicators. PECS can be used to help students with a variety of communication deficits, but are very commonly used for students diagnosed with Autism Spectrum Disorder (ASD). Students who undergo training to use PECS navigate their way through many stages of the training process. They are first taught how to make requests using the picture cards, then progress by adding more picture cards, and then they hone their skills even more deeply as they progress through the final stages of combining phrases and sentences with their picture cards. PECS training requires two trainers in addition to a wide variety of trainer couples. The more trainers students have working to train them to use PECS, the better able student will be to use the system spontaneously, independently, and most importantly effectively as a communicator with both neurotypical people as well as other users of PECS.

#### Recommendations:

We recommend that PECS be implemented for students with ASD. Our case studies support our hypothesis that students can greatly benefit from PECS with an increase in communication and socialization.