

THE USE OF PECS (PICTURE EXCHANGE COMMUNICATION SYSTEM) WITH A DEAF CHILD WITH AUTISM

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Introduction

The PECS (Picture Exchange Communication System) was implemented with a Deaf child diagnosed with PDD/NOS in order to increase spontaneous language production.

Past Research

- PECS has been shown to be an effective tool for increasing language production for children diagnosed with autism spectrum disorders (Charlop-Christy et. al, 2002).
- In a recent case study involving the use of PECS with a Deaf child diagnosed with autism spectrum disorder, an increase in language production and social development was documented. In this study some modifications and extensions were implemented to make PECS a more effective mode of communication for a Deaf learner (Malandraki & Okalidou, 2007).

Challenges

- PECS was created for spoken English and has never been officially adapted for Deaf learners.
- ASL requires eye contact and hand movements, therefore making the teaching of PECS phases difficult (i.e. encouraging the child to make eye contact in order for the message to be repeated back or holding the PECS sentence strip in hand and trying to sign the message back to the student).
- The grammatical structure of ASL is very different than English. This required that the sentence structure normally used with PECS be

adapted to match the “sentence structure” used in ASL production.

- The need for a technique that would encourage engagement in communication with various partners rather than isolated language production.

Method

Participant: Jack

- 6-year-old boy with profound bilateral sensorineural hearing loss.
- Diagnosed with PDD/NOS, visually impaired and multiple congenital anomalies, as well as developmental delays in all areas.
- Communication repertoire comprised predominantly of pointing and/or taking an adult’s hand to desired object/activity.
- Spontaneous communication extremely limited, occurring exclusively with familiar adults.

Baseline:

- Student displayed spontaneous communication (to familiar adults) only 2-3 times daily.
- Student’s documented receptive/expressive ASL skills: 25 signs/16 signs.

Goal:

To increase the frequency and quality of spontaneous ASL (American Sign Language).

Objectives:

- Phase I: Grasp and Release
Given one picture to request a desired object, student will grasp the picture and release it into the communication partner’s hand.

- Phase II: Distance and Persistence
Student retrieves picture from the communication book, walks to communication partner and releases the picture into the person’s hand.
- Phase III: Picture Discrimination
Student selects the correct picture from an array and gives the picture to the communication partner.
- Phase IV (A): Reinforcer on Sentence Strip
Student places picture on a sentence strip, pulls strip off of book and hands strip to the communication partner.
- Phase IV (B): Constructs Entire Sentence Strip
Sentence structure increased by adding the “I want” picture before desired object picture on the sentence strip. Student pulls off strip from communication book and hands it to the communication partner.

Teaching Techniques Used:

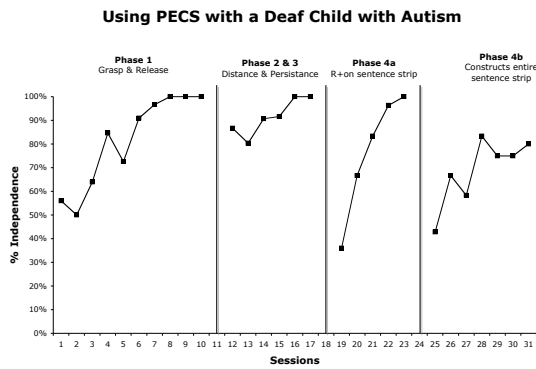
- Use of photos and Mayer-Johnson Boardmaker images.
- Physical prompting (most to least) utilized at each phase change.
- Periodic reinforcer assessments (formal and informal) were conducted.

Results

- Student quickly learned to discriminate the correct picture from a wide array of pictures (i.e. jump to Phase III).
-Discrimination skills excellent (e.g. able to select between two different computers (different programs).

- Student was also able to demonstrate inventive communication by requesting items that did not have a picture (e.g. use flash light picture for new light toy).
- Generalized skills to a variety of settings and communication partners.
- Student began seeking out familiar adults and engaging in eye contact while labeling objects in books or pictures in his environment.

Results



Conclusion

- The use of PECS strategies successfully increased the frequency and quality of spontaneous sign language in a Deaf child with autism.
- Logistics involved in staffing early training sessions impacted length of time required for student to move through PECS phases.
- Since the start of PECS, student has demonstrated increased frequency and duration of eye contact with spontaneous labeling.
- Student began making eye contact and engaging in one circle of communicative interactions with peers.
- Over the course of 1 year, the student's documented receptive/expressive ASL skills grew to 100 signs/60 signs.

References

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