PICTURE EXCHANGE COMMUNICATION SYSTEM™

Picture Exchange Communication System™ (PECS) is a behaviorally-based intervention designed to teach functional communication skills to children with limited to no existing communication skills, including children with Autism Spectrum Disorder (ASD). PECS is a form of augmentative or alternative communication that uses pictures to teach children how to communicate.

How does PECS work?

With the support of two adults, children are taught to exchange a picture card for a desired object or activity. As with all behaviorally-based interventions, PECS is most effective when the child is highly motivated, so make sure the child has the opportunity to communicate about something he or she really wants! PECS is also used to teach the child to make a choice. The different functions of communication are then gradually expanded beyond requesting (see below).

The 6 phases of PECS training

- Phase I: The Physical Exchange:

The child learns to become a speaker and initiate communication by passing a single picture to the “listener” to request a highly desired item. During this phase, the adults help the child by prompting the request and using hand-over-hand technique to guide the child to pass the picture on to the “listener.” For example, a child may be presented with a picture of his or her favorite food: gummy bears. When beginning to use the pictures, Adult 1 helps the child give the picture card to Adult 2 by using hand-over-hand guidance (guiding the child to give the card to Adult 2). Adult 2 then gives the child a gummy bear, along with lots of praise for using the system. Once the child learns that he or she can get what he or she wants, communication has been established, and new pictures can be added to increase the child’s vocabulary.
- Phase II: Expand Spontaneity:

The child learns to be a more persistent communicator by seeking out pictures and communication partners on his or her own in order to make requests. During this phase, the adults use a systematic “fading of prompts.” This system, known as a prompting hierarchy, gradually provides less prompting and encourages spontaneous communication. A plan to fade prompts is part of the PECS program so that prompts are used only when necessary and are gradually eliminated as the child learns. As with Phase I, the adults respond to the request as if the child were actually speaking. The child is communicating effectively, after all!

- Phase III: Picture Discrimination:

The child learns how to tell two pictures apart and how to pick the picture that shows the item that he or she wants. For children who have difficulty understanding pictures, small objects can be used at first, placed immediately in front of each picture. As the child learns that the picture is a representation of the item he or she wants, the pictures are moved further from the items and are eventually no longer placed to spatially correspond to the items. It is also important to help the child discriminate between two pictures by making the choices very different from one another. Initially, a preferred item (such as a gummy bear) is presented with a non-preferred item (such as a toy car). Gradually the child learns to discriminate and label a multitude of items from his or her environment (everything from Cheerios®, to the refrigerator, to the school bus, etc.) that are then added to a PECS book.

- Phase IV: Sentence Structure:

In this phase, grammar, or combining pictures, is introduced. The child is taught to make requests by expressing “[I want] + [gummy bears].” The PECS cards for “I want” and a picture of the desired item are paired to make a sentence of “I want gummy bears.” Vocabulary is also expanded during this phase by introducing new object pictures as well as pictures representing adjectives and other parts of speech. By the end of this phase, the child can now communicate with his or her PECS cards, for example, “I want red gummy bears.”

- Phase V: Responding to “What do you want?”:

The child learns how to respond to specific questions, such as “What do you
want?” Unlike earlier phases, in Phase V the desired object does not need to be physically present.

- Phase VI: Responsive and Spontaneous Commenting:

In addition to responding to “What do you want?,” the child will learn to differentiate between this and similar questions, such as “What do you have?” and “What do you see?.” The child should begin to be able spontaneously to distinguish between the questions and respond with the appropriate carrier phrases learned in phase IV: “I want ____,” “I see _____,” “I hear _____,” etc.

FAQs about PECS

Q: What can my child communicate with PECS?
A: One of the great things about PECS is that once your child has learned to use the system, you can create picture cards for anything. Some children use only a few pictures, and others have large books of pictures. Sentences communicated using PECS tend to be relatively short. PECS pictures can be hand drawn, downloaded from different programs such as Boardmaker® or Vizzle®, or even photographed and printed.

Q: Will using PECS mean that my child will never speak?
A: No. The use of PECS (and other alternative communication systems) has not been shown to delay or inhibit spoken language acquisition. In fact, the opposite may be true. Because PECS helps children learn how communication works, it may make it easier for them to learn other communication systems, such as spoken language. In this case, PECS is used as a “bridge” to spoken language to help children learn to understand functional communication. However, each child is an individual, and in some cases, PECS is used as the primary communication system, instead of spoken language.

Q: How do I decide which communication system to use?
A: The communication system that you choose will be based on your child’s individual strengths and weaknesses, as well as the resources available in your child’s home and school. One advantage of PECS over sign language (another common alternative communication system) is that your child does not need to be able to recall specific signs from his or her memory in order to communicate because the pictures are right there. Also, almost everyone can understand the pictures, and it doesn’t require excellent fine motor skills to put a picture onto a
Velcro strip. The downside of sign language is that it requires good fine motor coordination, and people with whom your child is communicating must understand signs. One drawback to PECS over sign language is that PECS requires the child to keep his or her picture book with him or her, while signing does not require physical materials. No matter what system you choose, make sure that there is consistency across settings. For example, if you choose PECS, your child should use PECS at home and with all teachers and therapists. Your child should not use PECS at home and sign language at school.

Q: Has PECS been studied?
A: Yes. PECS has substantial research support. It is considered to be one of the most effective treatments for improving communication skills in children with ASD. There have been many studies examining the effectiveness of PECS, including at least 4 randomized, controlled trials, which are considered the best way to research treatments. After reviewing 13 studies, the National Standards Report classifies the Picture Exchange Communication System as an emerging evidence-based treatment, which has facilitated increased communication and interpersonal skills in children.

Related Articles:

- How Do I Choose a Treatment?
- Augmentative and Alternative Communication for Individuals with ASD
- American Sign Language
- Speech, Language and Communication
- Evidence Based Practices

Recommended Link:

- CAR Resource Directory (Select Mental/Behavioral Health – Behavior Therapy)

Additional Resources:

- PECS™ USA Website
- PECS summary, from the Association for Science in Autism Treatment
- The Six Phases of PECS
resource is a personal decision, which should take into account each individual's and family's particular circumstances.