IRCA ARTICLES
Communication

What is the Picture Exchange Communication System or PECS?

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Description of the PECS program as defined by Lori Frost and Andrew Bondy

The Picture Exchange Communication System or PECS approach is a modified applied behavior analysis program designed for early nonverbal symbolic communication training. It is not a program designed to teach speech, although the latter is encouraged indirectly and some children begin to spontaneously use speech while enrolled in the PECS program. The PECS training program was developed at the Delaware Autistic Program. PECS training occurs during typical activities within the natural settings of the classroom and the home. The communication training occurs within a broader positive behavioral support context entitled the Pyramid Approach. Training techniques include strategies such as chaining, prompting/cuing, modeling, and environmental engineering. (See the training manual, video, and other print material published by Lori Frost and Andrew Bondy for details about the program.)

Professional training regarding PECS is required in order to implement the program as designed. Generally the training is provided at a two-day workshop. While speech pathologists might be the primary PECS program coordinator for a specific child, it is helpful to have others also attend the two-day trainings since they too will play an important role. These others could include parents, the classroom teacher, and classroom assistants. They will be important in identifying new vocabulary and may help construct some of the picture display symbols as well as provide the nonverbal individual with opportunities to use/learn the new vocabulary. Although many people receive their initial training from a Pyramid Educational Consultant, others may receive their training through a train-the-trainer model from a local individual who has had training beyond the two-day orientation and is certified to train others.

Who is a candidate for PECS training?

PECS training is not limited by age but rather by a small set of criteria. Thus, PECS training could be offered to a fifty year old adult with a cognitive impairment as well as to a two year old with no cognitive impairment.

First of all, the candidate for PECS training should be an intentional communicator. This means that the child (or adult) is aware of the need to communicate his/her message to someone, even if it is in a limited fashion. The child (or adult) who drags someone across the room to the location of an object that he or she wishes to have, has at least a beginning notion of intentionality. The child (or adult) who attempts to obtain things without visually checking for an adult or involving him or her in some fashion in the quest to fulfill a desire or need, may not be intentional and may need a different approach before PECS training. (See McLean, McLean, Brady, and Etter, 1991 for information about contact and distal gestures.)

Second, the individual should have some personal preferences, in addition to having intentionality. PECS helps to teach the concept of the power of alternative communication. If one has no or weak preferences, then it may be more difficult to understand and learn the POWER of effective alternative communication via the PECS approach. Sampling for preferences is a first step before beginning PECS training. It may be necessary to develop a repertoire of preferences and dislikes through trial and error or through a history of exposure to various types of food, objects,

or activities when there are few strong preferences. (See Reichle, York, and Eynon, 1989 for additional information on identifying preferences.)

Picture discrimination ability is not a pre-requisite criterion for candidacy. Those individuals who do have discrimination skills, may make faster progress in the initial stages of the program. Some individuals, however, may spontaneously demonstrate that they not only have the ability to discriminate pictured material but that they also already know how to use pictures to communicate. These individuals might be locating and bringing pictures or catalogues on their own initiative to parents or teachers to indicate their desires, for example. These children (or adults) may be ready to begin more traditional augmentative programming; the latter would allow a greater variety of message generation during the initial stages. (See Beukelman and Miranda, 1998 for more specific guidance regarding augmentative communication.)

Although the PECS strategy is primarily used with individuals who are nonverbal, it could be used with individuals who are primarily echolalic, those who have unintelligible speech, and those who have only a small set of meaningful words or signs in their repertoire. Careful consideration of the program and its strengths and weaknesses should play an important role in program selection for each prospective communication learner.

What is the PECS training format?

Phase I

Programming for PECS begins with three people in the training situation, the child (or adult) who will be transmitting a message, the person who receives the message (e.g., Mom or the teacher), and the facilitative adult who deliberately assists the message sender to make the targeted response.

In Phase I, the program begins with enticement whereby the adult displays or shows a preferred object or food item to the child (or adult learner). As he or she reaches for the desired object, the facilitator assists the child to pick up a picture for the desired object or food item. He or she is physically assisted to give the picture to the message receiver who must be physically near the child (or adult) communicator. The physical closeness allows the exchange to easily take place. The adult who receives the message (picture) does not say anything until the picture is offered. At that juncture, the message receiver says something such as "Oh, you want a pretzel (or whatever the picture represents) and gives the item to the person making the request. In Phase I, there is variation of the items requested, the person who receives the message, the facilitator, and the environment in which the exchange takes place. The objective is to have approximately 80 exchanges during the course of the day.

Phase II

In Phase II, the exchange continues with attempts to increase the independence of the student. The facilitator is still available for as-needed assistance. The student learns to remove the picture from a display board for the exchange. He or she must engage in more physical movement than in Phase I in order to accomplish the exchange. It is preferable to have the child or adult who is the PECS user be responsible for carrying his or her own communication book.

Phase III

In Phase III, the student learns to select the target picture from a choice of multiple pictures that differ in various dimensions. Error correction strategies are used when the response is incorrect.

Phase IV

In Phase IV, the student combines the object picture with the carrier phrase "I want" on a sentence strip and gives the strip to the adult or communication partner.

Phase V

In Phase V, the student learns to respond to the question "What do you want?" by exchanging the sentence strip. Use of the questioning phrase is delayed until Phase V, because the exchange behavior should be automatic by that point in the programming sequence. Earlier use of the carrier phrase or an extended hand gesture is believed to provide undesirable cues relative to the desired behavior.

Phase VI

In Phase VI, the student learns to respond to the questions "What do you want?" vs. "What do you see?" vs. "What do you have?" This last phase is designed to introduce the young communicator to commenting behavior; the previous stages focused on requesting behavior.

What types of symbols should be used for PECS training?

The pictures used with the program may be photographs, colored or black and white line drawings, or even tangible symbols. Mayer-Johnson pictures symbols, often called PCS, although often used as stimulus material, are not a mandatory picture resource for the program. Selection of picture representation type and size is dependent on individual needs. (See the IRCA article entitled Visual Resources for Enhancing Communication for Persons with Autism Spectrum Disorders and Other Disabilities which is located on the IRCA website for a listing of options.)

Is it necessary to follow the total PECS protocol?

Published reports regarding PECS are based on implementation of the program as defined above. The program may take several months or several years to complete.

Not everyone who says that he or she is using PECS is running the program as designed, however. Some may use the strategy of a picture exchange but do not adopt the PECS procedures and phases. Many people try to run the program without using a facilitator in the early stages. The latter would not be considered as representing PECS programming, although it might be very successful with selective individuals. Following the protocol for the first three stages and then shifting to a more traditional AAC intervention program, however, is recognized by Frost and Bondy as a legitimate adaptation of the PECS program.

Summary

PECS can be an effective program to assist specific individuals with autism spectrum disorders to become more effective communicators. Decisions about the use of the PECS program, any modifications of it, co-programming, or preliminary programming must complement and reflect the needs of the individual emergent communicator and should be made by the entire treatment/instructional team.

References

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