What is PECS (Picture Exchange Communication System)?
PECS is a type of augmentative and alternative communication system based upon black and white line drawings or multi-colored icons. The use of PECS requires the learner to exchange an icon with a listener in order to initiate getting his/her needs met. PECS targets functional communication and teaches initiations of social interactions (Bondy & Frost, 2001). This approach also emphasizes initiation of requests, responding to questions posed, and other communicative social functions. Use of PECS involves implementing and incorporating specific methodology and procedures developed by Bondy & Frost (See Bondy & Frost, 2001).

How do you do it?
PECS requires implementing procedures as outlined by Bondy & Frost, 2001. The procedures for instructing learners to successfully acquire the communication system makes use of basic applied behavior analytic principles of shaping, differential reinforcement and transfer of stimulus control via embedding a time delay. In general, pictures and icons attached with Velcro are kept by the children in a book or on a communication board. Learners are taught to generate a sentence by selecting specific pictures and exchanging the cards with a communicative partner. The first two steps of the training process involve two trainers, one who remains the listener and the other who can successfully prompt the child from behind. Six steps of training involve targeting and teaching: physical exchange, expanding spontaneity, picture discrimination, sentence structure, answering a question, and commenting. These steps are described in detail for the trainer in a manual (Bondy & Frost, 2001). Prior to implementing training, it is important to assess potential reinforcing items that will be used via the icons in order to insure that the learner will be highly motivated for access to the item.

What are the benefits?
Research has demonstrated that learners diagnosed with autism spectrum disorders have been able to...
acquire use of PECS. This system can be used successfully with a wide range of listeners and does not require the listener to have specialized training or knowledge of another communication system (as does, for example, sign language). Further, this approach does not require the speaker to emit a referential communicative act before an initiated request. To illustrate, the speaker does not have to orient the speaker to the item or to themselves; the speaker can simply initiate a request. PECS is considered to be a more naturalistic communication approach. Previous research has demonstrated an increase in language after the implementing and acquiring of PECS. Specifically, research has shown increases in vocal behavior, in the average words spoken per trial, changes in non-word vocalization, an increase of spontaneous communication skills, and an increase of peer interactions.

Other research has suggested that challenging behaviors has decreased thereby producing an increase in adaptive behaviors (e.g., compliance). Lastly, PECS has also been used to successfully target improvisational skills and problem solving.

Are there any cautions?
As described by Bondy (2001), problems may arise when pictures are lost. In order to be proactive, it is suggested that caregivers, clinicians and educators take multiple pictures of especially highly preferred icons. In addition, once learners master a high number of icons (over 80), changing to an electronic communication device should be considered. Selection of an electronic communication device should not impede upon the learner’s independence, functional use, and current repertoire of skills.

References and Resources

For additional information, please see the website of Pyramid Educational Consultants: http://www.pecs.com/


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