The Picture Exchange Communication System (PECS)

PECS is a unique alternative/augmentative communication system developed in the USA in 1985 by Andy Bondy, Ph.D. and Lori Frost, M.S. CCC/SLP. PECS was first implemented with pre-school students diagnosed with Autism at the Delaware Autism Program. Since then PECS has been implemented worldwide with a variety of learners of all ages who have various cognitive, physical, and communication challenges.

The PECS teaching protocol is based on B.F. Skinner's book, *Verbal Behavior (1957)*, and broad spectrum applied behavior analysis. Specific prompting and reinforcement strategies that will lead to independent communication are used through the protocol. The protocol also includes systematic error correction procedures to promote learning if an error occurs. Verbal prompts are not used, thus building immediate initiation and avoiding prompt dependency.

PECS consists of six phases. It begins by teaching an individual to give a single picture of a desired item to a "communicative partner", who immediately honors the exchange as a request. The system goes on to teach discrimination of pictures and how to put them together in sentences. In the more advanced phases, individuals are taught to use modifiers, answer questions and comment. Below is a summary of the six phases in PECS. A more detailed description can be found in the PECS Training Manual, 2nd ed.

**Phase 1: “How” to Communicate**

Individuals learn to exchange a single picture of a desired item or activity.

Training begins when a communicative partner presents a single picture of a highly desired item. The learner picks up the picture and releases it into a communicative partner's hand in exchange for the requested item. The communicative partner gives the item while naming the item (e.g., "ball"). Two adults (i.e. the communicative partner and a physical prompter) are used to teach this phase. Picture discrimination is not required.

PECS Training Manual, 2nd ed. pages 67 to 89.

**Phase 2: Distance and Persistence**

Individuals learn to generalize the exchange by travelling to a communication book and to a communicative partner in different places, with different people and across distances. Learners are also taught to be more persistent communicators.

Single pictures continue to be used since picture discrimination is still not required. A communication book which is a 3 ring binder with Velcro is introduced.


**Phase 3: Picture Discrimination**

Individuals learn to select from two or more pictures from their communication binder to ask for their favourite things.

Discrimination training begins between two picture symbols one that is highly desired verses one that is non-desired. Teaching discrimination systematically expands to multiple pictures symbols of desired items.

PECS Training Manual, 2nd ed. pages 123-156

**Phase 4: Sentence Structure**

Individuals learn to construct simple sentences on a detachable Sentence Strip using an "I want" picture followed by a picture of the item being requested.

Building and exchanging a two picture sequence begins by teaching the learner to place the picture of the desired item on the Sentence Strip. The learner is then systematically taught to bring down the "I want" symbol plus picture symbol and to point to the Sentence Strip. The communicative partner reads the Sentence Strip. Communication is encouraged but not demanded during this phase. If any vocal attempts occur, differential reinforcement strategies are utilized.

PECS Training Manual, 2nd ed. pages 159-181

**Attributes and Languages Expansion**

Individuals learn to expand their sentences by adding adjectives, verbs and perpositions.

Expanding sentences, such as "I want blue candy" is taught. Receptive identification of modifiers is not a prerequisite. Individuals learn concepts based on an attribute that is important to them.

PECS Training Manual, 2nd ed. pages 185-206

**Phase 5: Responsive Requesting**

Individuals learn to use PECS to answer the question, "What do you want?".
This is the first time within the PECS protocol where the communicative partner asks a question about what the learner wants. The learner is asked a question, such as, "what do you want" and is provided a gesture prompt. Over time, that prompt is systematically faded and a variety of questions are taught. It is important to remember to maintain spontaneous communication that was taught in Phases 1 - 4.

**Phase 6: Commenting**

Individuals are taught to comment in response to questions such as, “What do you see?”, “What is it?”. They learn to make up sentences with “I see”, “I hear”, “I feel”, “It is a”, etc.

The ultimate goal is for learners to comment about the world around them. Some learners may not find social feedback reinforcing. Therefore, this phase begins with responding to commenting questions and using materials/lessons learners will find fun and interesting.

It is important to note that the primary goal of PECS is to teach functional communication. Research has shown that some learners using PECS also develop speech. Others may transition to a speech generating device. The body of research supporting the effectiveness of PECS as an evidence based practice is substantial and continues to expand, with research from countries around the world http://www.pecs-unitedkingdom.com/research.php


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