

## **PECS (picture exchange communication system)**

The Picture Exchange Communication System (PECS) was developed by Lori Frost, Dr. Andy Bondy, and their team, and has become one of the leading forms of augmentative communication for individuals with autism. There is a heavy emphasis on functional communication through the use of Applied Behaviour Analysis. Although this system is mainly used with children on the autistic spectrum, it can be used with adults and other individuals with different types of communication disorders or delays.

### **The Pyramid Approach**

The team that developed PECS use the Pyramid Approach which follows the principals of applied behaviour analysis, and focuses on functional communication skills through different forms of communication. The approach uses prompting strategies, error correction strategies and generalization. It is a team approach, so the teachers, parents, teacher aids etc should all be involved.

The Pyramid approach is made up of key elements:

- Functional objectives - teaching skills that are relevant and functional, using functional materials, and skills that can be generalized to everyday activities.
- Powerful reinforcement systems - using a reward system (with different types of rewards and structured timing of rewards), and teaching the individual to know what is expected of them prior to the reward (“making a deal”).
- Communication and social skills - using different communication modalities, encouraging initiation and seeing communication as bi-directional.
- Preventing and reducing contextually inappropriate behaviours - focussing on different types of behaviour, finding the cause, and looking at alternatives to reduce inappropriate behaviours with more effective, appropriate and functional actions.



The next elements of the pyramid look at teaching strategies, collecting data and generalizing the new behaviours and skills.

The program also focuses on 9 critical communication skills:

1. Asking for a desired item
2. Asking for assistance
3. Asking for a break
4. Rejecting
5. Affirming
6. Responding to "Wait"
7. Responding to functional directions
8. Responding to transitional cues
9. Following a schedule

### **The Picture Exchange Communication System (PECS)**

The program is very structured and encourages individuals to initiate communication and request. The detachable pictures are kept in a book which individuals can take to different environments. The teaching of the program involves working through 6 phases, although some individuals may not complete the later phases.

**Phase 1 (How to communicate)** - this phase teaches the individual to initiate communication by exchanging a picture card for a desired item. To start with, this is usually done at a tabletop with a communication partner and a physical prompter to guide the individual. Prompting is then faded until the individual spontaneously requests using the picture card.



**Phase 2 (Distance and persistence)** - this phase requires the individual to travel. To make the system functional the individual must learn to seek out the picture of the desired item and then take it to the communication partner. This phase is taught through "shaping" where the distance between the picture card and/or the communication partner slowly increases. Again, a prompter may be used and then faded as the individual learns the new skills.

**Phase 3 (Picture discrimination)** - this phase teaches the individual to discriminate between pictures so that they realize that not just any picture gets a reward, and particular pictures represent particular things. This is initially done by encouraging the child to choose between a motivating and non-motivating item.



**Phase 4 (Sentence structure)** - this phase starts to use the pictures to build sentences, initially using the “I want...” picture card ahead of the item on a sentence strip. As the individual learns they may increase the number of items they request at one time on the sentence strip.

**Phase 5 (Responding to “what do you want?”)** - during this phase the individual learns to respond to a question.

**Phase 6 (Commenting)** - with this phase, the individual is learning to answer more questions and spontaneously comment on things they might see and hear.

Some individuals may not get to the final phases, but may still have a functional system of communication using PECS.

As the individuals work through the 6 phases they also learn a lot of other skills:

- Attributes - learning to request using descriptive words involving size and colour, so that requests can be more specific
- Requesting help
- Requesting a break
- Responding to “wait”
- Following visual schedules
- Answering “yes” or “no” to “Do you want?” questions
- Following functional directions
- Responding to transitional cues

The whole program requires teamwork, and a structured and consistent approach with record keeping and trainer assessment. The training manual offers lots of strategies when difficulties arise during the phases. It is important to be consistent and patient when working through the phases. This system is sometimes discarded if carers/teachers do not see quick results. Some children learn PECS quickly, while others take time. With patience and persistence most individuals with autism should be able to acquire some level of communicative function using PECS.



There is a lot of evidence supporting the effectiveness of PECS. In a study by Schwartz, Garfinkle and Bauer (1998), they found that 31 children of various significant disabilities progressed from having limited functional communication skills to using PECS to communicate with adults and peers. Furthermore, in a second study, they found 44% of children acquired unprompted, non-echolalic speech, and all children demonstrated many successful communicative interactions across settings. The PECS system appears to expand the communicative interaction of many individuals beyond picture exchange.

The team around the individual must also be aware that they should not too readily discard PECS if some speech does start to develop, but rather work with the 2 systems in tandem until, and if, speech becomes the fully functioning communication system for the individual.

Frost, L. & Bondy, A. (2002) PECS: The Picture Exchange Communication System

Schwartz, I.S., Garfinkle, A. N., and Bauer, J., (1998). The Picture Exchange Communication System: Communicative outcomes for young children with disabilities. Topics in Early Childhood Special Education, 18, 10-15.

To learn more about autism, autistic spectrum disorders and strategies to enhance communication, you can read about and purchase books on our website [www.icommunicatetherapy.com](http://www.icommunicatetherapy.com). Click this link to see our online Resource Centre. ***Suggested Reading***

### **Suggested Reading:**

**A Picture's Worth: PECS and Other Visual Communication Strategies in Autism (Topics in Autism)** by Andy, Ph.D. Bondy and Lori Frost

**Solving Behavior Problems in Autism (Visual Strategies Series)** by Linda A. Hodgdon

**1001 Great Ideas for Teaching and Raising Children with Autism Spectrum Disorders** by Veronica Zysk and Ellen Notbohm

**Playing, Laughing and Learning With Children on the Autism Spectrum: A Practical Resource of Play Ideas for Parents and Carers** by Julia Moor

**Overcoming Autism: Finding the Answers, Strategies, and Hope That Can Transform a Child's life** by Lynn Kern Koegel and Claire LaZebnik



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**Self-Help Skills for People With Autism: A Systematic Teaching Approach** by Stephen R. Anderson, Amy L. Jablonski, Vicki Madaus Knapp, and Marcus L Thomeer

**Activity Schedules for Children With Autism: Teaching Independent Behavior** by Lynn E., Ph.D. McClannahan and Patricia J., Ph.D. Krantz

**Visual Supports for People With Autism: A Guide for Parents and Professionals** by Marlene J. Cohen and Donna L. Sloan

**Making Visual Supports Work in the Home and Community: Strategies for Individuals with Autism and Asperger Syndrome** by Jennifer L. Savner, Brenda Smith Hyles, and Brenda Smith Myles

**Visual Language in Autism** by Howard C. Shane and Sharon Weiss-Kapp

**The New Social Story Book : Illustrated Edition** by Carol Gray

**My Social Stories Book** by Abbie Leigh White, Carol Gray, and Sean McAndrew

**The Social Skills Picture Book Teaching play, emotion, and communication to children with autism** by Dr. Jed Baker

**Comic Strip Conversations** by Carol Gray

To learn more about autism and find strategies, activities, and information to develop and enhance communication, go to [www.icommunicatetherapy.com](http://www.icommunicatetherapy.com)