



## FROM PECS TO IPAD:

Developing the Pivotal Skills Needed for Functional Communication

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## THE IPOD AND IPAD ARE GAINING POPULARITY AS A TOOL FOR STUDENTS ON THE SPECTRUM

- Students have a high interest in technology
- More affordable than dedicated AAC devices
- Most people are familiar with this mainstream technology
- There are a growing number of really “cool” apps that are available for free or little cost
- They can be used for multimedia entertainment such as music, movies, videos and games
- Educational apps can engage otherwise hard to motivate students



# CHARACTERISTICS OF STUDENTS WITH AUTISM

- Students with autism are lacking many of the pivotal skills that are needed to engage in functional communication.
- Some nonverbal students have physical limitations for communication but demonstrate the pivotal skills needed for functional communication.
- This presentation assumes your student has the physical ability to access pictures but is lacking the pivotal skills to use them functionally.



## SO...YOU WANT TO USE THE IPAD AS A COMMUNICATION DEVICE?

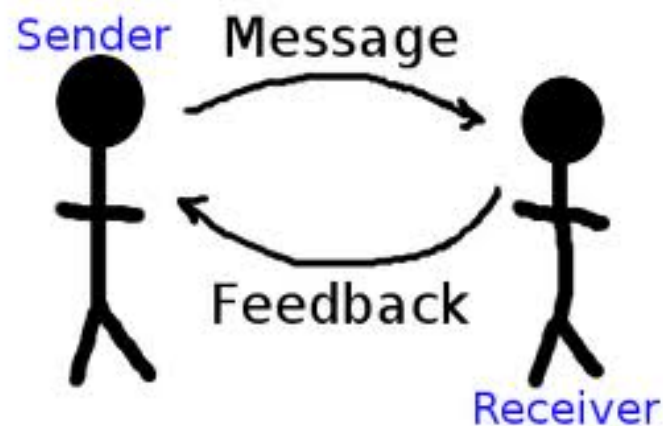
- Does the student demonstrate joint attention?
- Does the student initiate a meaningful communication exchange with another person?
- Is the student willing to interact with others while using technology?

These pivotal skills are needed in order for functional communication to take place.



# PIVOTAL SKILLS FOR EFFECTIVE COMMUNICATION

- Joint Attention
- Motivation
- Initiation
- Self-Management
- Empathy (taking the perspective of another)



# PICTURE EXCHANGE COMMUNICATION SYSTEM™ (PECS™)

- PECS, created by Andy Bondy, PhD, and Lori Frost, MS, CCC-SLP, is a great way to develop those early pivotal skills for communication
- Pictures are smaller and less costly for a student to travel with across his environment
- A picture can be used for communication without the student being distracted by technology
- Phase II of PECS is the most important phase to develop natural and spontaneous communication
- Functional communication requires a student to initiate, travel and exchange a message with another person



## I'VE TRIED PECS AND IT DIDN'T WORK!

- PECS must be implemented in the correct way to be successful.
- Many student's are introduced to higher phases of PECS such as discrimination and sentence building before they have developed the basic skill of initiating and traveling across the environment to exchange communication
- If the student has not developed the pivotal skills needed for functional communication using PECS...then chances are he will not develop these skills using an AAC device.
- Spend time developing initiation and traveling



## WHAT IS PECS

- Developed in 1985 by Lori Frost, M.S. , CCC/SLP and Andy Bondy, Ph.D for children with autism.
- PECS is designed to teach functional communication with an initial focus on spontaneity.
- PECS uses picture symbols as the modality.
- Many preschool children using PECS begin developing the use of speech.
- PECS is currently used for a variety of learners of all ages and with various communication challenges.





# THE 6 PHASES OF PECS

Phase I: The Physical Exchange

Phase II: Distance and Persistence

Phase III: Picture Discrimination

Phase IV: Sentence Structure

Phase V: Answering Questions

Phase VI: Commenting

Many people move on to Phase III without spending time at Phase II.

Phase II is a critical part of the PECS process.

Without developing spontaneity and persistence the student will not be able to use PECS or any tool/device as a functional communication system.



## A CLOSER LOOK AT THE PHASES OF PECS

- It is very important that each phase is implemented in the correct way.
- The following overview is not enough information to implement PECS with fidelity
- It is recommended that you attend a training given by Pyramid Educational Consultants and refer to the PECS Training Manual to be sure you are proceeding in a manner that will ensure successful and functional communication for your student
- A little time spent up front will make a big difference in the overall success of your student



## PHASE I –THE PHYSICAL EXCHANGE

- Before beginning PECS, develop a menu of highly motivating items with corresponding pictures.
- The goal is for students to exchange pictures for items or activities they really want.
  - The communication partner will present one highly motivating object and wait for the student to reach for it.
  - As the student reaches for the desired item, a facilitator moves the student's hand to a single corresponding picture and has them place this picture in the open hand of the communication partner.
  - Continue until the student can initiate a communication picture exchange without the help of a facilitator.

All information about the Phases of PECS was taken from [www.pecs.com](http://www.pecs.com)



## PHASE II- DISTANCE AND PERSISTENCE

- “Still using single pictures, students learn to locate their communication book, retrieve a picture icon and travel to an increasing distance to the communication partner for the picture exchange.”-[www.pecs.com](http://www.pecs.com)





## PHASE III: PICTURE DISCRIMINATION

- “Students learn to select from two or more pictures to ask for their favorite things. These are placed in a communication book—a ring binder with Velcro® strips where pictures are stored and easily removed for communication.”

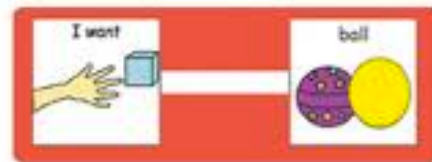
- [www.pecs.com](http://www.pecs.com)



## PHASE IV: SENTENCE STRUCTURE

- Students learn to construct simple sentences on a detachable Sentence Strip using an “I want” picture followed by a picture of the item being requested.
- Attributes and Language Expansion:
  - Students learn to expand their sentences by adding adjectives, verbs and prepositions.
  - Create naturalistic learning opportunities to teach concepts.

-[www.pecs.com](http://www.pecs.com)



## PHASE V: ANSWERING QUESTIONS:

- Students learn to use PECS to answer the question, “What do you want?”.
- Note that this verbal prompt does not start until Phase V. Up to this point the student is nonverbally motivated to initiate the request.

-[www.pecs.com](http://www.pecs.com)





## PHASE VI: COMMENTING:

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

-[www.pecs.com](http://www.pecs.com)



## BEYOND PECS

- If the student continues to be nonverbal and has successfully moved beyond the 6 phases of PECS, consider the use of a dynamic voice output device.
- The student's PECS book should continue to be made available to the the student as he is learning to use the device.
- Keep the PECS book available as a back up to the device.



## WHEN SHOULD I INTRODUCE THE IPOD/ IPAD?

- You can introduce it right away for games and educational activities.
- If the iPad is highly motivating, have the student use picture exchange to request apps on the iPad
- Present apps that will help the student develop access skills such as scroll, touch and drag, targeting.
- Cover the menu button to keep the student from jumping from app to app.
- Initial use with the iPad should be structured and supervised.



I WANT TO PLAY.....



## BEFORE YOU HAND IT OVER.....

- Set Restriction Code in General Settings
- Turn off application options from General Settings
- Consider moving the settings icon to an unknown location (Don't let them see you access it!)
- Restrict Pages available during training
- Determine student specific settings such as grid size, appearance, and touch features
- Set boundaries for use of device
- Create motivating opportunities to facilitate use of specific vocabulary. Make it meaningful!!!



## HOW TO BEGIN USING THE IPOD/IPAD FOR COMMUNICATION:

- Select a grid size appropriate for the accessing abilities of the student.
- Start with one highly motivating picture to teach the student to use the iPad to communicate a request.
- Gradually build the vocabulary and variety of functions.
- As in the PECS training, create opportunities to reinforce spontaneous use of the iPad for communication.
- Encourage the student to use the iPad for communicative functions. If the student wants to play other apps on the iPad ...have him make a request for you to bring up the app.



## AS IN PECS...CONTINUE TO FACILITATE INITIATION AND PERSISTENCE

- Using a single highly motivating message button, students learn to locate their iPad, travel to an increasing distance to the communication partner for the communication exchange, gain their attention, open/turn on the iPad and navigate to the desired picture icon.
- Begin using the communication exchange in different places, with different people, including peers, and across distances.
- Students are taught to be more persistent communicators for a variety of items and activities.



## DEVELOP NAVIGATIONAL SKILLS

- Start with one page of a few familiar pictures and blank buttons.
- Gradually add new categories/pages
- Start with 2-3 pictures per page and gradually add more items to each category.
- Present natural opportunities to practice use of new vocabulary.
- Provide frequent opportunities to practice use of vocabulary in routine/reoccurring daily activities.
- Remember...for functional communication the device must be available at all times (not just during speech therapy).





## DEVELOP SELF MANAGEMENT SKILLS

- In order for a student to use an iPad for functional communication ...it must be available at all times.
- Some students lack the self management skills to keep the iPad without wanting to play with it.
- If the teacher does not allow the student to keep the iPad at all times, then the PECS book can be provided until the student has developed better self management skills.
- Remember...whether it is the PECS book or iPad, the student must have access to his communication pictures at all times!



# QUESTIONS?

