Enhancing Communication for Students with ASD

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OBJECTIVES

➢ Increased understanding of communication for individuals with ASD.
➢ Increased understanding of strategies and interventions to support our students with communication deficits.
➢ Increased understanding on the use of iPads to increase expressive and receptive communication.
Communication AND ASD

- Impairment in verbal/nonverbal social communication are key features of ASD: 33%-50% of children with autism do not develop functional speech.
- Impairments often lead to a variety of challenging behaviours.
- Increasing receptive and expressive communication opportunities will decrease maladaptive behaviors.
- Communication skills are imperative for community participation, increased independence, relationship development, understanding routines and expectations etc.
- The exposure and use of AAC devices increase verbal communication oppose to decreasing verbal language development.
- Research shows that children with ASD who continue to show verbal language deficits by age 6 are likely to continue to struggle in this area.
Dr. Temple Grandin: Thinking in Pictures

https://www.youtube.com/watch?v=rJ90_mX8gQk
Dr. Temple Grandin: Thinking IN Pictures

- Limited Verbal Language
  - Follow Hierarchy of prompting
- Focus on Visuals
- Avoid *abstract* terms
  - Avoid sarcasm
  - Use direct and clear language
  - Ex. Do not *hit* Adam
  - **Instead:** Tell them what they should be doing, or redirect to schedule.
What is Communication?

The ability to use symbols (spoken words, nonverbal gestures, pictures, etc.) and to convey to or receive a feeling or idea from another person.

Messages can be conveyed via

- Speech
- Sign language
- Written words
- Facial expressions
- Gestures
- Braille
- Signs or symbols
- Body movement
When the function of the behavior is deemed to be communicative, teach an alternative communicative response that serves the same function.

Communication interventions need to be individualized.

Non-verbal children with ASD also fail to compensate for ineffective communicative attempts (they need to be taught).

This is why we tend to see increased behaviors related to communication difficulties.
Achieving Communication Skills

➢ Interventions should target functional, spontaneous communication
➢ Interventions should provide communication skills instruction across settings
➢ Active engagement in intensive intervention with many learning opportunities

NRC, 2001
Supporting strategies

Increase active engagement:
- Allow student to initiate or lead interaction
- Use motivating learning materials (special interests, tangible reinforcers)

Structure learning setting to promote understanding:
- Physical boundaries
- Visual supports
- Clear task organization

Plan for data collection:
- Systematic system for tracking and analyzing

Communication:
- Share intervention data
- Anecdotal reports in all settings
- Engage all in problem solving
Strategies to facilitate communication

➢ Ensure that a communication system is in place (written, photos, visual representation, iPad apps, PECS, objects)
➢ Use visual schedules and supports (BoardMaker, photographs, written words, first/then, consequence maps, social stories, modeling)
➢ Use clear, concise language
➢ Allow processing time
➢ Provide social scripts for spoken language
## Supporting Communication

### Visuals:
- Written
- Photos
- Visual representation
- PCS/PECS
- Visual schedules
- Social stories ™
- Social scripts
- Self-modelling

### iPad applications:
- First Then Visual Schedule (HD)
- Choiceworks
- Sounding Board
- SPEAKall!
- Proloquo2go
- Touchchat
- LAMP
Picture exchange communication system (PECS)

PECS was designed for children with ASD and other social-communication deficits who have limited or no functional communication. There are six specific phases:

- I Physically assisted exchange
- II Expanding spontaneity
- III Picture discrimination
- IV Building sentence structure
- V Responding to questions
- VI Responsive and spontaneous commenting
Phase 1: teaching the Physically Assisted Request

- Gather or identify a selection of items that are favorable for the individual
- Ensure that training takes place across many different daily routines and activities (settings).
- The request is prompted by physically interrupting the learners reach toward the desired item and redirecting the learner to touch the picture symbol instead.
- Do not provide verbal prompts
- The learner is immediately rewarded with the item after the exchange.
Several iPad applications designed to facilitate its use as a communication system.
Providing augmentative and alternative communication (AAC) for people who have difficulty speaking.
Customize applications to needs of student.
iPads are inexpensive in comparison to other devices.
Portable.
Studies show that spoken language will still increase when using AAC devices.
Ideal for students to have understanding and be able to use both high and low tech communication systems. (low tech - PECS, high tech - iPads).
iPad Tips

- Use a clear voice with minimal background noise
- Have capable students verbalize expressive and receptive communication matched with photos only when they are CALM.
- The iPad is their “voice” therefore it should be with the student at all times.
First Then Visual Schedule

Visual Schedules

- For receptive communication and increasing student independence. Excellent for transitions, building routines and waiting skills
- $16.99
- Teacher and/or parent created
- Easy to create individual schedules for activities and easy to manipulate schedule
- Unlimited amount of activities available to enter for each schedule, built in timer, able to back up schedules through drop box
- Suitable for any age
- List of steps for small activities (tie shoes, locker, chores, routines)
- Personalized audio and photos
For receptive communication and increasing student independence. Excellent for transitions, building routines and waiting skills

$7.99

Has options for schedules, waiting, feelings, social story-esque feel

Built in timers, can be backed up on itunes.

Can only have a limited number of pictures for each page, would need several schedules to complete one day of activities.

Animated but has ability to enter in own photos and personalized audio
Communication apps: Expressive

➢ Each communication system should be created individually and catered to fit the program, needs, and goals of each student.
➢ Apps require a large amount of teacher/parent set up and maintenance.
➢ Many students require adult support when learning how to use the applications. Similar to PECS training/hierarchy of prompting.
➢ Start students out by offering choice boards for preferred activities or foods (very few options).
➢ Increase options (food items, break choices, bathroom needs, school staff, home requests, family, outing requests, feelings, etc.) as students begin to request independently and understand its function (requesting appropriately will get me what I want).
Sounding Board
- No cost
- Create unlimited choice boards
- Sounding board is a good place to start as it is free
- Personalized audio and photos

SPEAKall!
- Several different versions, $45.99- $200.00+ for full version
- Fairly easy to set up and maneuver.
- Several boards are provided
- Can add unlimited of your own photos and personalized audio to already made boards as well as create your own (food, feelings, people, activities etc.)
Communication Apps cont.

Touch Chat
➢ Prices range depending on version from $11.99-$350.00
➢ Can add personalized audio and own photos.
➢ More advanced than previous apps.

Proloquo2go
➢ $299.99+
➢ Advanced, works great for students who can read and write.
Guided Access: Teachers are able to lock iPad on specific apps, to restrict students from leaving desired communication apps. (Instructions on how to enable this feature can be found in the Resource Guide).

- Protective durable iPad case
- Backing up FTVS HD in dropbox, and Choiceworks on itunes.
Professional and Parental Attitudes

➢ Exploring parental and professional attitudes on ipad use - results showed favorable attitudes towards wanting to use these devices as a tool for communication for students with ASD.
➢ Technology related anxiety was identified as most significant predictor of attitudes for both parents and professionals.
➢ Training or professional development in the use of iPads for professionals working with children with ASD may increase confidence and utilization of applications.
Choosing the right app for your student

Current research indicates there are five important considerations for evaluating what app. is best for your students.

➢ The ability to customize the application
➢ The motor skills the student will need to operate the system
➢ The resources and time needed for the intervention
➢ The research or evidence based practices behind the application
➢ The cost of using the device and application
Choose a student in your class to keep in mind for this activity.
Each group will be given Candy, take a picture of the Candy and enter the visual into either Sounding Board or Speakall - depending on which app. Would best support this student’s learning needs.
Discuss the differences/level of support that this student may need in requesting “candy”
Discuss the differences in all your students in your class.
- Ex. Karen can differentiate between several different photos, she can verbalize her request matched with a visual.
- Ex. Daniel in his learning is working on recognizing one photo, too many photos would be overwhelming for him. He may require hand over hand assistance, verbalizing the photo is not a realistic goal at this point for him.
Apps for Students with Autism Spectrum Disorders

When looking for apps for students on the autism spectrum (ASD), it is important to look at all educational apps and not just those that are tagged as autism apps. They have many of the same learning needs that other students have. This list was developed to provide apps based on common learning characteristics and traits that are typical for students with ASD. It is important to remember that all students learn differently and selecting apps should be based on the unique learning needs of the student. This list is only a sampling of apps available for each skill area. This is not, nor is it meant to be a definitive list. This list is intended to give you a starting place and a rationale for picking certain apps.
Apps June, 2016

Are you confused?
Are you wondering what apps might be right for your student or your child? These apps have been vetted by our consultants and considered to be useful for some students. They are all low cost or free. Some of them have demonstration sites or lite versions that allow you to try them out to see if they will work with your student before purchasing.

In selecting an app to use with a student, it is important to consider how the app will be used. Careful planning will help to avoid long, unproductive time spent on the iPad.
A List of Apps for Social Skills and Autism Spectrum Disorders

List created by:
Jessica Chase, M.A. CCC-SLP
Consonantly Speaking

Originally created on: 11/23/2011
Publicly released on: 5/23/2012
iPad Apps in Early Intervention and School-Based Practice

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The use of iPads as a therapeutic tool in occupational therapy practice has become increasingly prominent in helping children with disabilities (Amerih, 2013). The iPad, along with various applications (apps), has been and continues to be used as an intervention method to help individuals who have deficits and/or limitations in communication, handwriting, motor skills (both fine- and gross-motor), coordination, visual perception, cognition, activities of daily living, and to improve participation in academics (Amerih, 2013). The iPad became commercially available in 2010 and, since then, has been used with children with a variety of disabilities ranging from those with communication deficits (to provide an alternative communication method) to those with autism (to teach basic life skills; Hager, 2010).

Apple’s app store has 500,000 apps available for download, with an increasing amount of these apps being developed for young children (More & Travers, 2013). As the use of the iPad/apps as a technology device for those with disabilities is expanding on a daily basis, it was a challenge to capture the best, the latest, and the most useful information. We very much enjoyed the challenge, and hope you find the following review beneficial!
Discussion Questions

➢ Ensuring students are receiving individualized communication programs requires continual adapting and maintaining of communication systems. Discuss amongst your teams how you can work together to keep iPads up to date.

➢ What technology have you used in your classroom to enhance communication for students with ASD?

➢ Do you have preferred apps that you like using with your students with ASD? Please share amongst your teams.


* POPARD (Provincial Outreach Program for Autism and Related Disorders)  
  www.autismoutreach.ca (resources and then apps)

* Autism Speaks  
  www.autismspeaks.org/sites/default/files/pedagogy_wheel.pdf

* Glenwood Autism & Behavioral Health Center  