

Part 4: Introducing and Teaching the AAC System

Augmentative and Alternative Communication for Autistic Individuals

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AutismONTARIO

Welcome



TRACIE LINDBLAD



Speech-Language Pathologist

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Training, Certifications, Publications:

- Augmentative & Alternative Communication (AAC)
- Picture Exchange Communication System (PECS)
- Paediatric Feeding Disorders
- Interprofessional Education & Practice

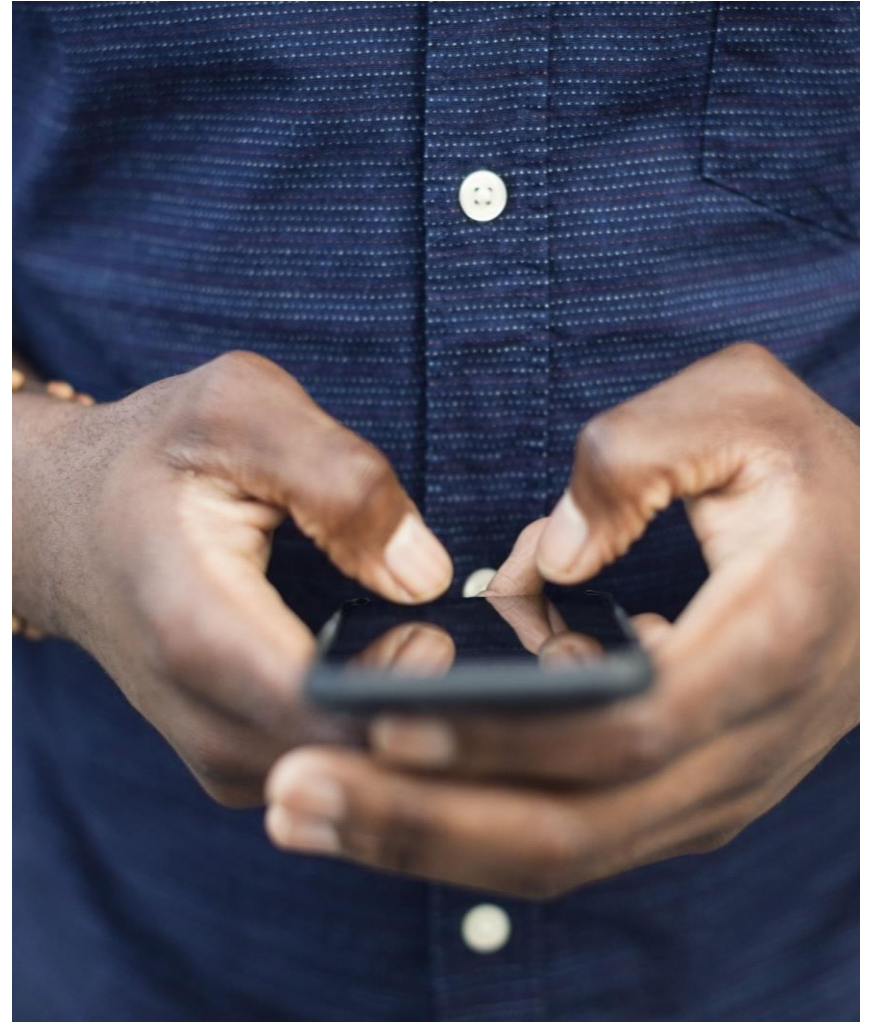
Conflict of Interest

- Salaried employee of Autism Ontario
- Clinical Advisor for Linggo
- Advisory Committee - ASAT

Agenda

- Brief Review of AAC – What is it, Assessment, Prerequisite Skills, Choosing a system, Setting Goals
- Introducing the AAC system
- Effective Methods of Teaching
- Resources and Supports

AAC Review



Which AAC System is Best?

The primary goal of the field of AAC is to support the **communication** and **participation** of individuals with **complex communication needs**

(McNaughton and Light, 2015)

Assessment for AAC

What are the steps in a good AAC assessment?

Determine the child's level of abilities in language, learning, motor, and sensory skills

Observe the child with various people and across places and settings

Involve the child, parents, caregivers, instructors, and/or others (e.g., SLP, BCBA, OT) for their goals and cultural or family needs

Complete a dynamic assessment - assesses the level of teaching / prompting needed and the type of materials required for learning

Conduct a 'feature matching' exercise to determine the top two or three systems (hardware & software, apps)

Trial each system to determine which is a good 'fit' and/or which the child prefers (or dislikes)

System Selection

- Match the skills and current strengths to the most appropriate AAC system
 - Choose the system that matches most closely
 - Consider the individual's motivation and reinforcers
 - Consider your family's values and wishes
 - Consider 'other' required resources – financial, programming/material development, training
 - Consider additional support required (BCBA, educator, AAC specialist, SLP)

Goal Selection

1. Pre-requisite access skills

- Gross and fine motor skills required
- Motivation and reinforcers
- Delayed access to reinforcers
- Visual discrimination skills (making sense of pictures)

2. Vocabulary Selection

- Teach what matters ‘most’ to the individual
([Laubscher & Light, 2020](#))
- Teach words that can replace challenging behaviour



How do I Introduce the AAC System?



Developmental Path

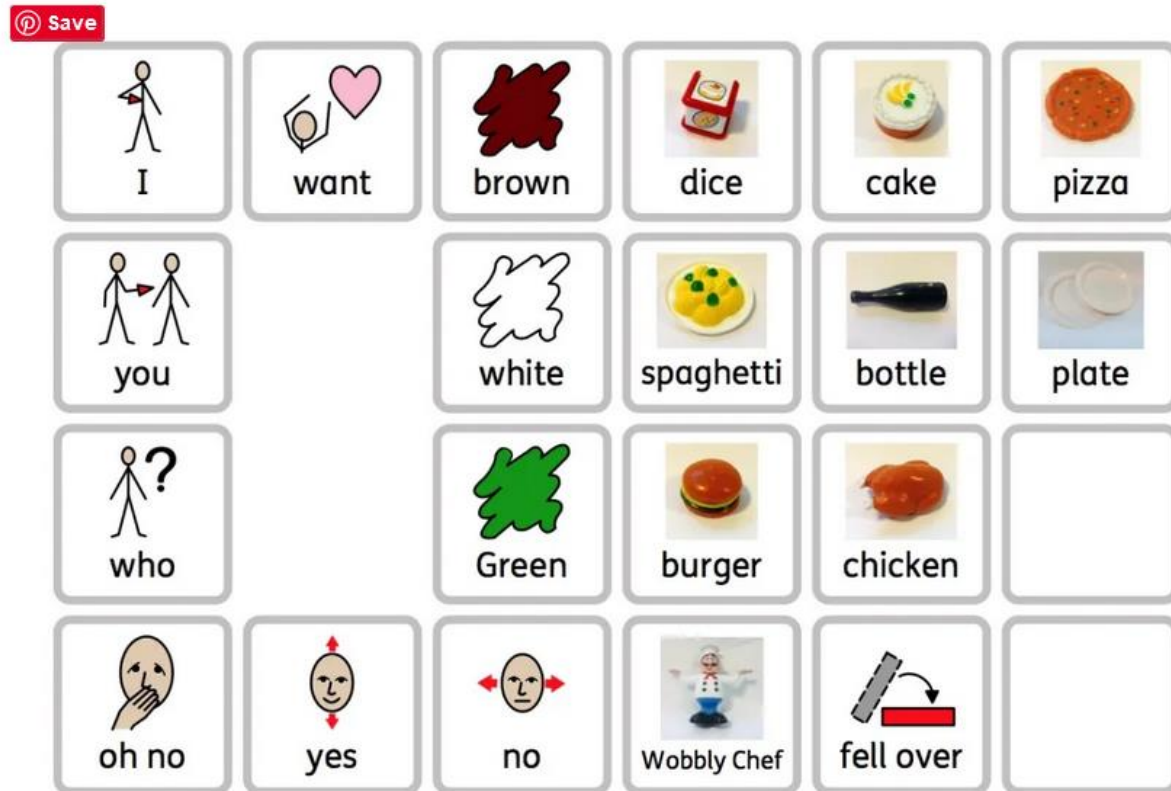
Neurotypical Developmental Stages

Age	Words Understood	Words Used
8 months	5	--
12 months	50	5 – 10
18 months	100+	20 – 50
24 months	300+	100 – 300 2-word phrases
36 months	500+	1,000+ 3-word phrases
48 months	>1,500	1,600+ 4+-word phrases

Device Organization & Set-up

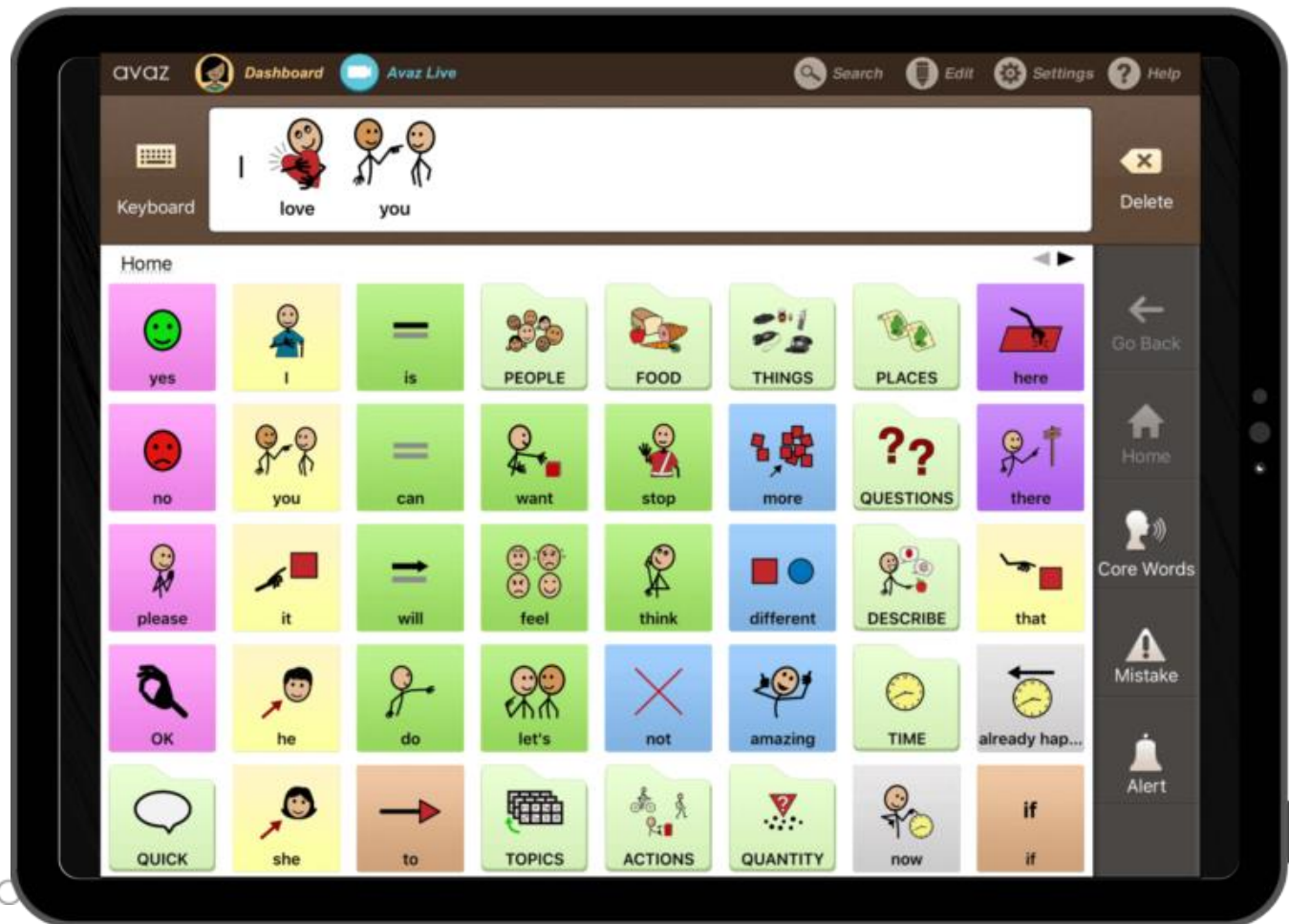
Decide on the **organization structure** which will lead to communication growth for the particular individual

- **Traditional:** Subject + Verb + Object organization



Device Organization & Set-up

- **Category folders:** actions, objects/things, people, places, food & drink



Device Organization & Set-up

- **Functional Use:** (semantic display) organized around activities (playground, mealtime, routines, home, etc. so that all needed vocabulary is included within that page



Layout & Organization

- A key factor in Speech Generating Device (SGD) **layout and organization** is **speed and efficiency** – data collection is required in order to assist in the determination of most effective and efficient layout
 - Length of time required to generate the message
 - The number of ‘button presses’ required to generate a typical message
 - The ease and accuracy required to access the most frequently used vocabulary
 - Access skills (swiping, use of various back/home buttons, backspacing/delete, etc.) which are required for effective use

Procedures for Implementation

Introduce the SGD using the Implementation Checklist for SGD as a guide

- The [Implementation Checklist for SGD](#) is a task analysis for introducing and working through the transition process from a current communication system to device use

- Companion document - [Steps for Implementation - SGD](#)

Module: Speech Generating Devices (SGD)

Implementation Checklist for SGD

Franzone, E., & Collet-Klingenberg, L. (2008). *Overview of speech generating devices for children and youth with autism spectrum disorders*. Madison, WI: The National Professional Development Center on Autism Spectrum Disorders, Waisman Center, University of Wisconsin.

Instructions: The Implementation Checklist includes each step in the process of implementing use of an SGD. Please complete all of the requested information including the site and state, individual being observed, and the learner's initials. To assure that a practice is being implemented as intended, an observation is always preferable. This may not always be possible. Thus, items may be scored based on observations with the implementer, discussions and/or record review as appropriate. Within the table, record a 2 (implemented), 1 (partially implemented), 0 (did not implement), or NA (not applicable) next to each step observed to indicate to what extent the step was implemented/addressed during your observation. Use the last page of the checklist to record the target skill, your comments, whether others were present, and plans for next steps for each observation.

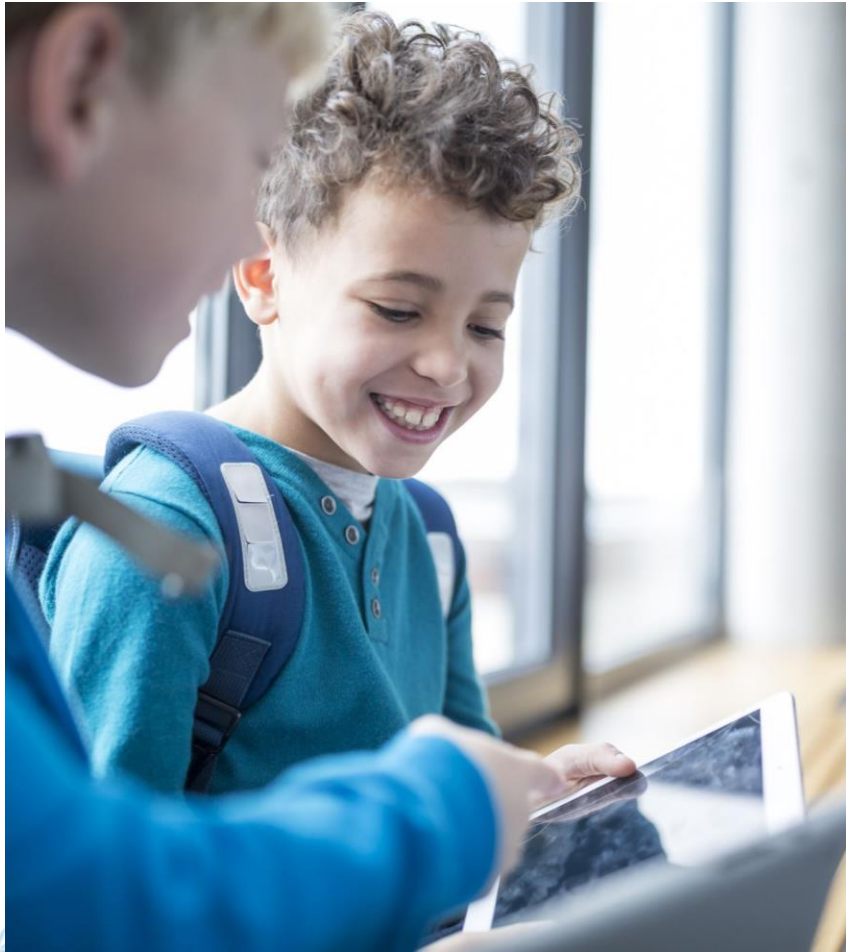
Site: _____ State: _____
Individual(s) Observed: _____ Learner's Initials: _____

Skills below can be implemented by a practitioner, parent, or other team member

Observation	1	2	3	4	5	6	7	8
Date								
Observer's Initials								
Planning (Steps 1 – 5)								
Step 1. Identifying and Setting Up the Device	Score**							
1. Select an appropriate device, taking into account how the information is displayed, the learner's present and potential abilities (e.g., attention span, experience with symbols, ability to establish joint attention), portability of the device, available training and technical assistance, and funding sources.								
2. Introduce the device to the learner by having a device with few symbols and/or buttons with nothing on them.								
3. Include desirable and undesirable symbols to facilitate the learner's ability to discriminate.								
Step 2. Introducing Direct Support Persons to the Device								
1. Team members are identified and trained in how to program and use the device.								
2. One or two key members of the team are identified as primary contacts regarding its use.								

**Scoring Key: 2 = implemented; 1 = partially implemented; 0 = did not implement; NA = not applicable

Lesson Planning



Teach Systematically

Follow the manual if available (i.e., PECS)

Introduce 1 to 2 goals, at the most, to see progress and for problem solving (if needed)

Take data on each goal to see progress and provide information if there is a problem



Effective Teaching Methods

Effective Teaching

Use Evidence-Based Methods

Establish motivation - Is your child engaged? Will he/she get what they want?

Use assistance (prompts, help, or cues) to enable success

Fade the prompts as quickly as possible (while maintaining accuracy)

Make sure each word is attached to a single meaning (e.g., door vs. open door)

Model and practice - and repeat (use Behaviour Skill Teaching – BST)

- Throughout the day & across environments, people, items/activities

PECS Teaching Tips

- Manualized intervention
- Teaches the basics of communication:
 - Independence & spontaneity in communicating (pre-verbal skills)
 - Prompting and prompt fading
 - Requesting (manding), labeling (tacting), answering questions
 - Full communication system that can become very complex
 - App available if transitioning to an SGD (speech generating device) is recommended
- Recommended to master Phase IIIB (to ensure that visual skills are sufficient for picture-based communication)
- [PECS Canada - Training](#) [PECS YouTube Channel](#)

Device Teaching Tips

[What's Before the iPad? Teaching Basic Prerequisite Skills for iPad Use](#) article & [Table 1 Resource](#)

Plan Teaching

Method of Teaching

- Discrete Trials
- Task Analysis
- Types of Prompts

SMART Goals

Implementation Checklist

Teach Pre-Requisite Skills

Beginner Skills

- Understands Cause and Effect
- Basic Operation

Intermediate Skills

- Combination of Beginner Skills
- Can follow procedures

Advanced Skills

- Complex combinations can be performed
- Can make adjustments for personal preferences

Teach Language Skills

Requesting / Manding

*Labelling / Tacting

2-word phrases

- Verb + Object
- Object + Object
- Subject + Verb
- Subject + Object

Language Teaching Tips

- Start at the level of the child's current communication
- Model and teach one step above where your child/student is successful
- Choose words that are used throughout the day that are important for your child (e.g., those things/activities they want) – these are often called **'fringe' vocabulary**

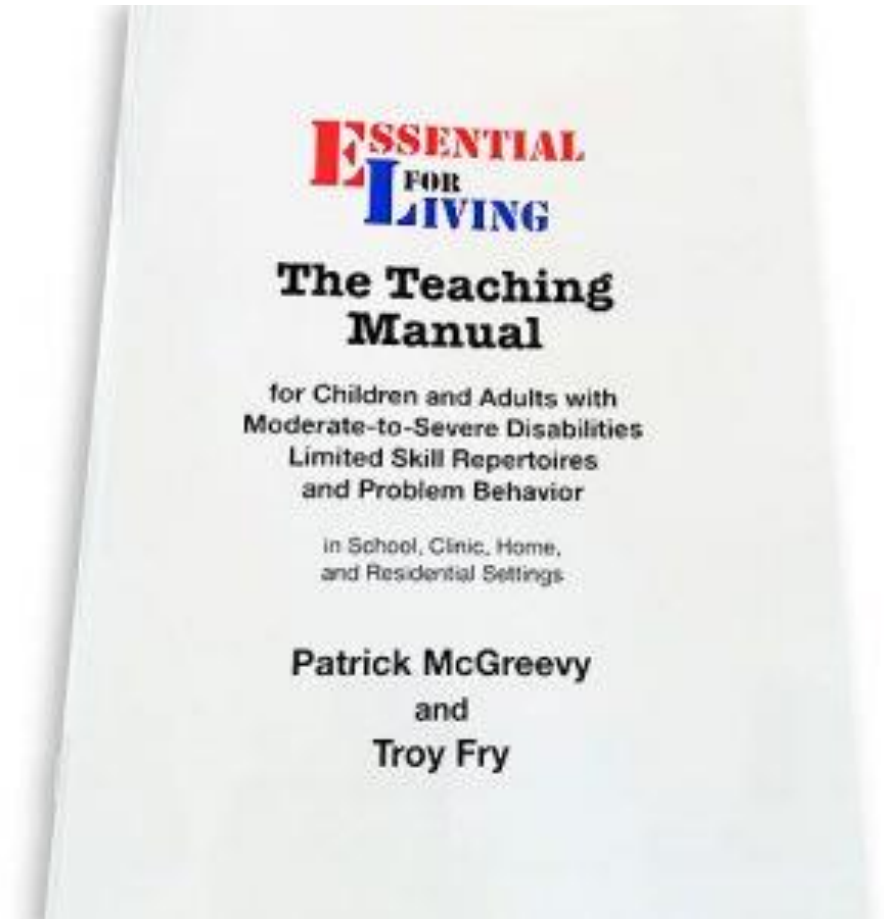
Language Teaching Tips

- *Initially* avoid teaching words that:
 - are for ‘politeness’
 - require an understanding of grammar or concepts, such as:
 - singular/plural, articles (the, a, an), pronouns
 - colours, shapes, quantity, size, *feelings
 - are complex concepts which are often not functional, such as:
 - more
 - yes, no
 - please or thank you

Functional Communication

- For older autistic children and youth with complex profiles, it may be helpful to follow a curriculum that is functional by design and walks you through the targets for communication

- [Essential for Living](#)



Programming to Teach Communication




AUGMENTATIVE AND ALTERNATIVE COMMUNICATION
2019, VOL. 35, NO. 4, 309–318
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TUTORIAL AND SYNTHESIS



Programing AAC just-in-time for beginning communicators: the process

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ABSTRACT

Individuals who have limited or no speech as a result of intellectual and developmental disabilities and who are beginning communicators (i.e., are learning early linguistic skills such as first words and early semantic relations) require augmentative and alternative communication (AAC) to build both their expressive communication and their internal language structures. Programing AAC just-in-time is a promising clinical approach to intervention for beginning communicators because of its alignment with early language development theory. Early research efforts also provide emerging evidence to support its theoretical benefits. This paper describes a six-step process for programing AAC content just-in-time for beginning communicators. It highlights clinical challenges and considerations for each step, provides case examples of using the process with beginning communicators, and highlights potential limitations and future research directions related to the just-in-time programing of AAC for beginning communicators.

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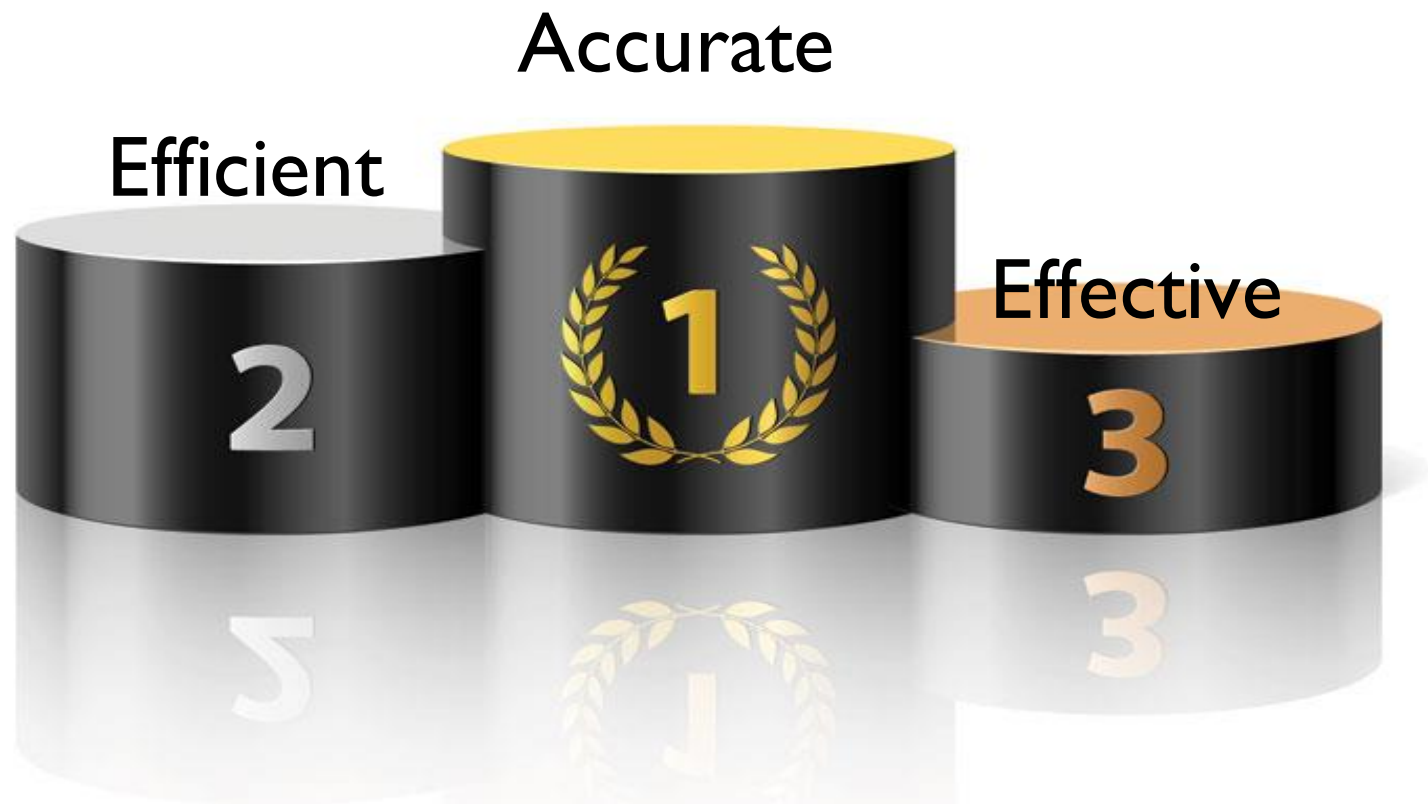
KEYWORDS

Beginning communicators;
just-in-time programing;
mobile technology;
language; intervention

Summary

- If use of a speech generating device is mainly for communication of **beginning skills** (single-word requesting and/or labeling), then there is limited benefit for choosing high-tech (i.e., SGD) over low-tech devices such as PECS (Note: *other forms of low-tech communication have not been shown to be effective at this time*).
- This is especially significant considering that the most recent rate of autism is quoted as 1 in 66 children, and it is generally accepted that approximately 25 - 50% of those individuals will remain functionally non-vocal communicators.
- Concentrate on functional communication that is...

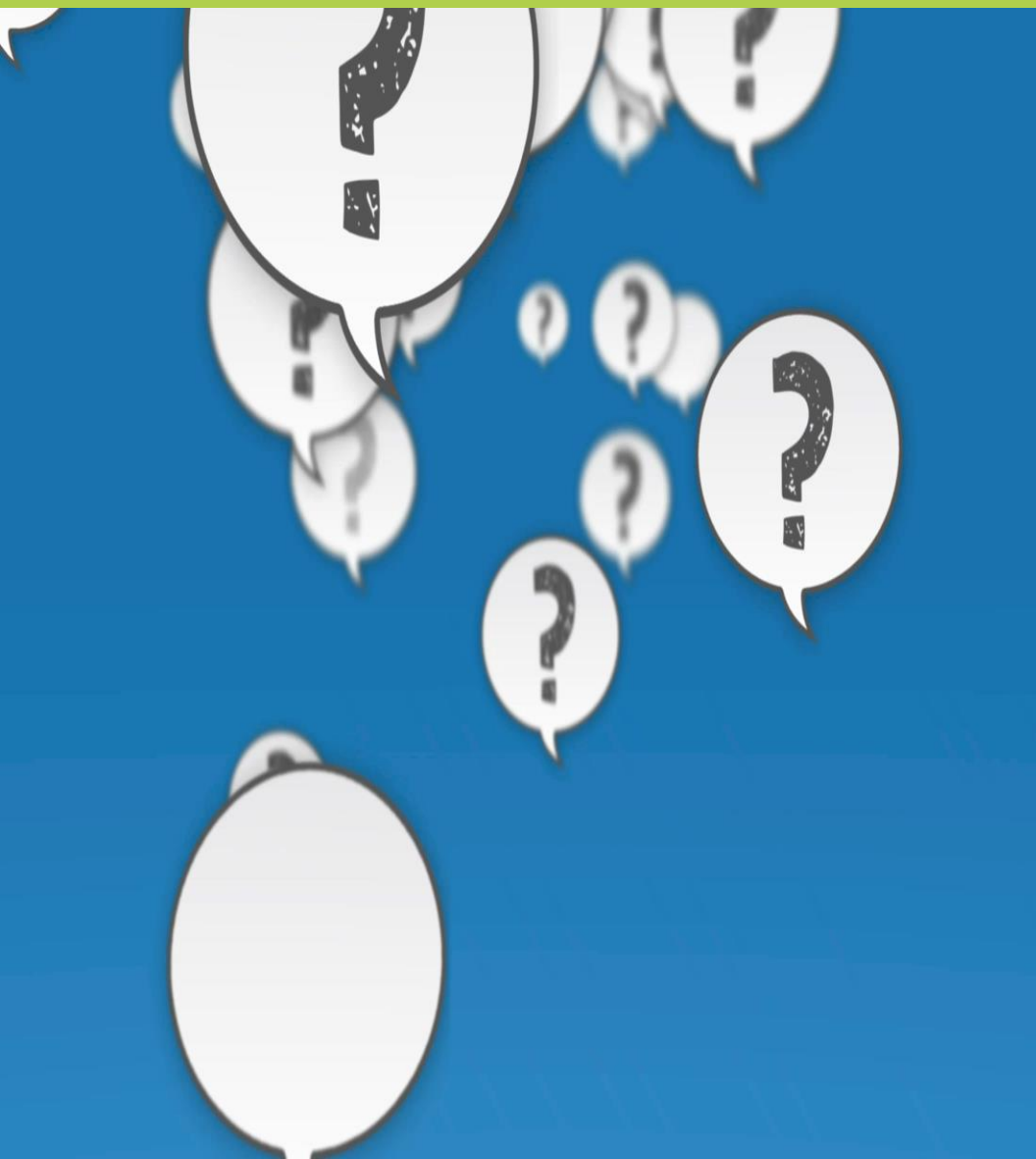
AAC Desired Outcomes



Resources

- [AIM \(Autism Internet Modules\) - Picture Exchange Communication System](#)
- [Picture Exchange Communication System – Canada](#)
- [PECS – YouTube Channel](#)
- [Programing AAC just-in-time for beginning communicators: the process](#)
- [10 Tips for Using Your iPad as an AAC Device – A Practical Guide for Parents and Professionals](#)

Questions?



Upcoming Sessions:

Part 5: Problem Solving and Generalization

- March 9th – 12:30pm – 1 pm

Part 1, 2, & 3 available on demand

Feedback Survey

- Please answer each question in the survey
- The questions include items with:
 - A Likert scale (i.e., a 5-point scale with a range of responses)



- Selecting only one answer (single answer)
- Selecting all answers that might apply (multiple selections)
- Text boxes where you type your answer

**How can I
access AAC
services,
supports, and
funding?**



Accessing AAC Services, Supports, & Funding



Assessments

- [AAC Clinics in Ontario](#)

Professionals

- [OAP Provider List](#)
- [Speech-Language Pathologists](#)
- [Board Certified Behavior Analysts](#)

Accessing AAC Services, Supports, & Funding



Funding

- [Assistive Devices Program \(ADP\)](#) – communication aids
- Ontario Autism Program (OAP)
 - [One Time Interim Funding](#)
 - [Core Clinical Services](#) (with a prescription letter)
- Education – [Specialized Equipment Amount \(SEA\) claim](#)

References

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DOI:[10.3109/07434618.2015.1099736](https://doi.org/10.3109/07434618.2015.1099736).

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