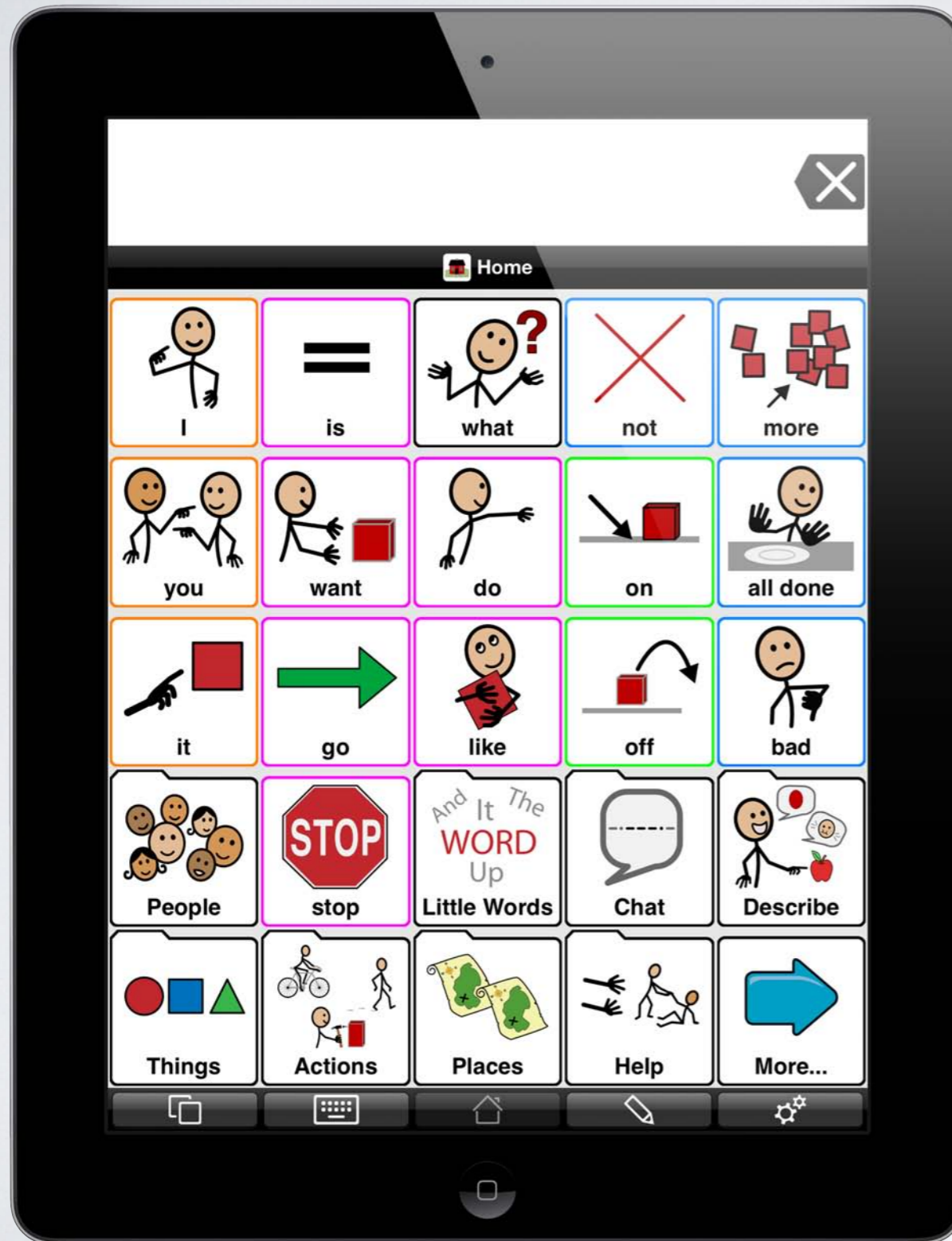# iPad for AAC: Increasing Opportunities to Communicate at School and in the Community

Eric Sailers, M.A., CCC-SLP

Overview

Intro

iPad for AAC appeal

AAC team roles and responsibilities

How team implements iPad for AAC at school and in the community

Over 5 years

Over 50 billion
downloads

Over 475,000
iPad apps

App craze?

Appsolutely!

iPad Air

Aided AAC Systems

Traditional	iOS (e.g., iOS 7 device + app)
$8,000+	$200 - $1000
Eye gaze and switch access	Switch access for screen, external, and/or camera
Research based vocabularies	Research based vocabularies & Ease of customization

iPad built-in features

Camera

Mic

Touch-screen

AAC
Intervention Team

Functional AAC Intervention
A Team Approach

by Cynthia Cottier,
Molly Doyle & Kimberly Gilworth

The AAC Intervention Team

Who Makes up the Team?

Because teachers and educational support personnel spend the most time with the child outside of the home, it is critical that they understand how to incorporate the use of AAC into the educational program. Family members must also be familiar with the system in order to use it effectively with the child at home and in the community. Speech-language pathologists typically provide the initial AAC training as well as ongoing support to teachers, classroom assistants and caregivers. The speech-language pathologist or other person who takes this leadership role is often referred to as the AAC specialist.

Promoting and maintaining a student's participation and independence in the classroom requires that the people involved in the child's educational program work together as a team. Although the composition of the team varies according to the child's needs and personnel available, team members typically include

- speech-language pathologist or AAC specialist
- assistive technology specialist
- special and/or regular education teacher
- occupational therapist
- physical therapist
- support personnel
- student
- family members

Speech-Language Pathologist or AAC Specialist

The primary responsibilities of the speech-language pathologist or AAC specialist may include

- evaluating and recommending AAC technologies
- managing vocabulary selection for communication boards and devices
- providing initial AAC training for the student
- troubleshooting complex problems with AAC equipment
- collaborating with teachers on strategies to promote inclusion
- collaborating with teachers on curriculum adaptation
- training instructional assistants and teachers in AAC
- periodically evaluating the effectiveness of the AAC systems
- evaluating and remediating any accompanying language deficits which interfere with system use

Assistive Technology Specialist

The primary responsibilities of the assistive technology specialist may include

- setting up and maintaining computers used in the educational program
- providing teachers with computer hardware and software adaptations to help students with different types of disabilities (e.g., visual impairment, physical disability) meet their educational goals
- inservicing teachers, students and parents about computer adaptations and software programs
- teaching students to use various hardware adaptations and software programs
- understanding how different assistive devices may increase independence and enhance function (e.g., page turners, environmental control units)

Special and/or Regular Education Teacher

The primary responsibilities of classroom teachers may include

- helping the speech-language pathologist select vocabulary for communication boards and devices
- teaching and adapting curriculum as necessary for students with special needs
- collaborating with the speech-language pathologist on strategies to promote inclusion
- creating communication opportunities
- providing the speech-language pathologist with feedback on the utility and benefits of AAC systems

Occupational Therapist

The primary responsibilities of the occupational therapist include

- evaluating motor control, visual acuity and perception
- evaluating wheelchair seating, positioning and mobility
- providing mobility instruction
- determining optimal physical access for students who are candidates for AAC (e.g., pointing with the fist, scanning with one or two switches, using a head pointer)
- providing functional activities to improve motor control and switch access (e.g., single switch toys, computer games)
- determining students' needs for any adaptive equipment that would improve independence and function (e.g., lap trays, page turners)

Physical Therapist

The primary responsibilities of the physical therapist include

- evaluating wheelchair seating, positioning and mobility
- providing mobility instruction

- helping the OT and AAC specialist determine optimal physical access for students who are candidates for AAC.

Support Personnel

Support personnel, such as classroom or instructional assistants, can help promote the student's functional use of AAC in a variety of ways. In addition to helping with curriculum instruction and assisting the student with basic health-care needs, classroom assistants play a critical role in implementing the total AAC intervention plan.

The extent to which support personnel will be involved in the AAC intervention program will depend upon

- their motivation and interest in learning about augmentative communication
- the specific needs of the student
- the extent of their other responsibilities within the classroom

With proper training, support personnel can play a critical role in facilitating the student's use of AAC. Listed below are tasks that support staff may be encouraged to do once trained. Many of these duties are also appropriate for peer buddies (see worksheets on selecting and training peer buddies, pages 46-48), student volunteers, and parents who have received training and instruction from an AAC specialist.

Responsibilities for support personnel may include

- providing device instruction
- helping the student maintain the device
- collaborating with the teacher and the speech-language pathologist on strategies to facilitate participation and inclusion in the classroom
- selecting vocabulary
- preparing topic or activity specific miniboards*
- showing students how to turn their devices on and off and how to retrieve messages
- providing opportunities to practice retrieving vocabulary or messages through various structured activities. These activities may include
    - retrieving vocabulary (drill work)
    - answering questions using stored messages

---

*Such as an overlay with vocabulary pertaining to a specific activity or topic. For example, a miniboard about baseball would include terms and messages, such as "Who's up next?" "What's the score?" "This is a great game." The overlay is only used during the specified activity or when discussing the topic of baseball.

-filling in words to complete sentences
- providing opportunities for practice with the system in various classroom
  contexts, for instance,
                    -greeting a classmate at the beginning of class
                    -participating in a classroom discussion
                    -taking a spelling test or completing written work
- working with students on the use of appropriate pragmatics or social skills,
  for example,
                    -maintaining eye contact with a partner during conversations
                    -using appropriate feedback (yes/no, wait, I don't know)
                    -initiating a topic of conversation
- encouraging students to use the most efficient communication method for
  various situations
- maintaining an augmentative communication notebook for a student, which
  may include instructions for operating the device and programming
  messages, a list of frequently used messages, a list of frequent problems with
  the device and possible solutions, and notes to other team members
  regarding the student's AAC intervention plan

Student

Students who use AAC are critical members of the intervention team. They need to
take some responsibility for developing and carrying out their AAC intervention
plan. The student's level of involvement will depend on ability, needs and
preferences.

Responsibilities of the student may include

- learning how to use the AAC device
- initiating the use of the device for communication and academic purposes
- devoting time to learning AAC strategies
- helping maintain the device
- using a variety of communication methods to indicate needs, ideas and
  preferences
- being an advocate by letting team members know when the equipment is
  not working or is not meeting needs (i.e., new vocabulary is necessary)

Family Members

The primary responsibilities of the family include

- participating in the AAC evaluation process; specifically, indicating where
  and with whom AAC is needed and describing success with previous
  communication devices or modalities
- helping with AAC trials and providing input regarding the most appropriate
  system
- helping with vocabulary selection

- helping provide AAC device instruction
- encouraging their child or a sibling to use the AAC system
- maintaining and troubleshooting the AAC device
- providing team members with feedback on the use of the system at home and in the community

Intervention team members can divide up responsibilities when forming teams or as needs arise. One recommendation for assigning responsibilities is to have the team leader, usually the speech-language pathologist, consult with each member individually to determine who can address specific needs best. Also, by knowing one's own responsibilities, as well as understanding those of others, the team can provide a more coordinated effort.

Characteristics of Effective Teams

A coordinated team ensures that the student has adequate resources and support, that the communication system is operational and designed to meet social and educational needs, and that problems are identified and resolved in a timely manner. The following list outlines some characteristics of effective teams. Use these guidelines when creating an intervention team or for evaluating the effectiveness of a team that is already in place.

Members of effective teams—

- designate a team leader
- recognize differences in goals, attitudes and expectations
- understand the primary goal of increasing the student's participation which leads to increased socialization and the forming of friendships while the student is learning the curriculum
- come to a consensus on academic and communication goals
- are sensitive to and appreciate the needs of other team members and collaborate with one another
- are flexible and open to modifying techniques or strategies that are ineffective
- are able to evaluate themselves honestly
- can determine strategies to facilitate the student's success
- show respect for the student's and family's preferences and decisions
- are accountable for reaching desired outcomes

Responsibilities of AAC Team Members

Team members work closely together and share common goals and responsibilities. Each individual may assume specific duties to maximize the child's education program; however, team members may share responsibilities in the following areas:

- providing and encouraging opportunities for student participation

Responsibilities of AAC team

- Provide and encourage opportunities for student participation

- Reinforce the use of the AAC system

- Encourage peer interaction

- Work on educational goals

AAC team steps led by SLP

1. Choose a system and select vocabulary

2. Provide an AAC training with hands-on time

3. Model AAC implementation with students

4. Observe staff implementation and provide feedback
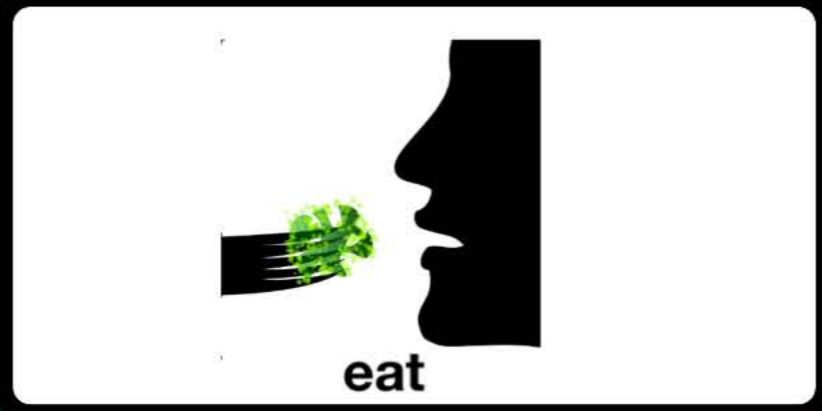
1. Choose system and select vocabulary

Activity Specific Organization

Activity Specific Pros & Cons

- Great for young developmental level, first AAC exposure

- Difficult to quickly change topic during activity

- Difficult to have display for every possible activity

- Limited linguistic flexibility
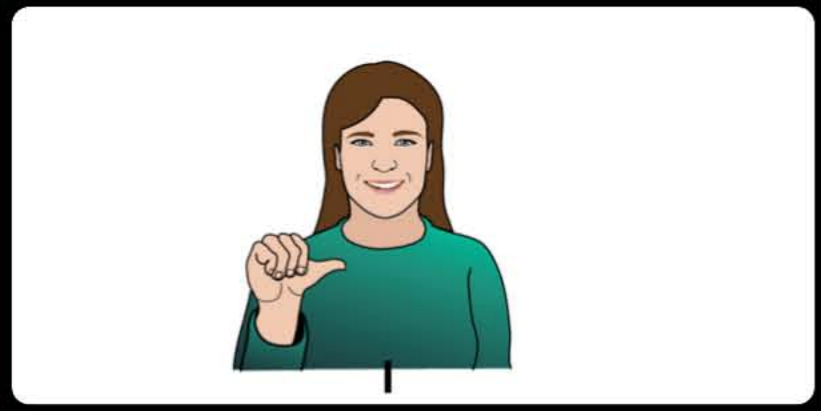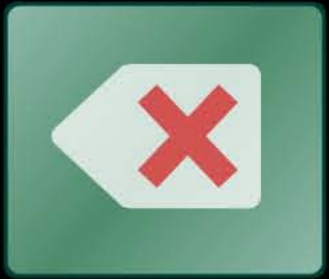
I	eat	I like it
you	drink	I don't like it
He	more	I'm done
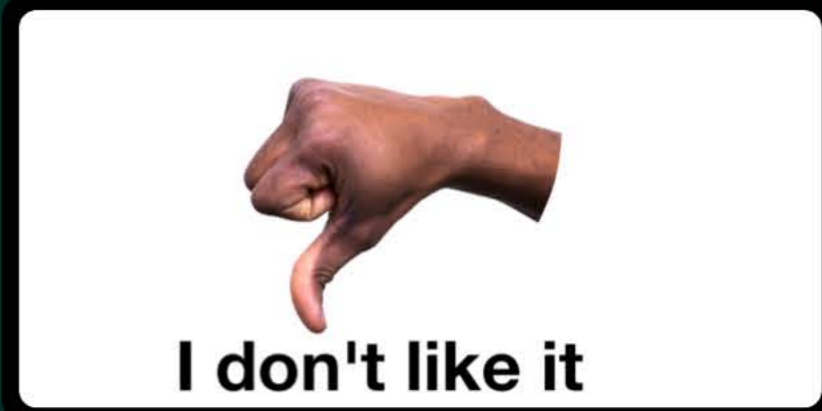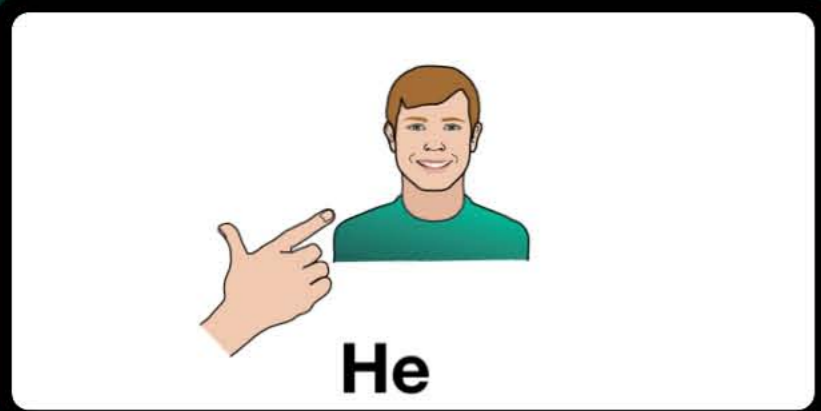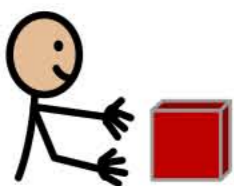
I want	Food	Drinks	About Me
I need help	Toys	My TV and DVDs	Chat
I feel	Activities	People	more
I want to go	Home	School	I need a break
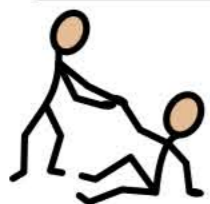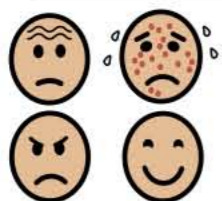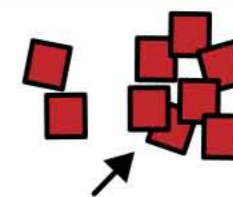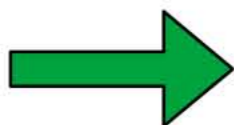
Andy

eat

marshmallow

strawberry

fireplace

garden

carrot
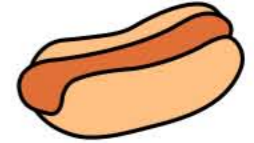
hot dog

beach

popsicle

soup

campfire

popcorn

watermelon
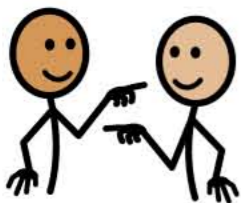
I	like	buy	go	don't
you	want	stop	it	How much
bathroom	food	hungry	thirsty	castle
fast	slow	again	yes	no
ride	Tomorrow land	Adventure land	Frontier land	Fantasy Land
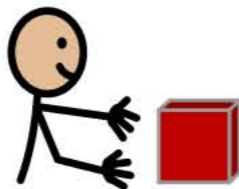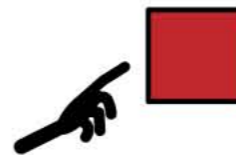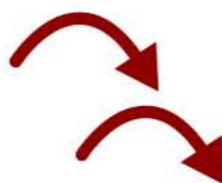
Core Vocabulary w/ p2g

Core Word Organization

- Small number of words makes up most of what we say

- Place frequently used words near the top of the hierarchy, where they can be reached fastest

- Place less frequently used (fringe) words at the bottom of the hierarchy, because they don't need to be accessed often

- Organize hierarchy so that it is easy to figure out the route to the word you want

Who should use Core Word Organization?

- Good categorization skills

- Understand that nouns and other activity-specific words are hidden from immediate view

- Language learners who have "out-grown" activity-based organization

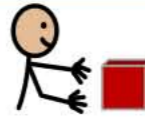- Physical access skills and visual processing suited to large number of items per screen
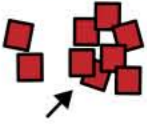
I	is	what	where	not	more
you	want	do	have	on	all done
it	go	like	see	off	good
that	stop	get	help	up	bad
People	Actions	Little Words	Chat	down	Describe
Things	Fun	Places	Help	Food	More...
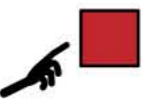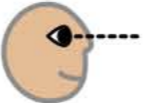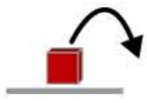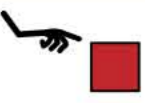
I	is	what		not	more
you	want	do		on	all done
it	go	like		off	
	stop				bad

People	Actions	Little Words	Chat		Describe
Things	Fun	Places	Help	Food	More...

- Which specific **restaurants** does your child visit in the community that he/she would want to communicate about? (For example, Wendy's, McDonald's, Burger King, etc.)

- Which specific **vacation** sites would your child want to communicate about? (For example, camp, beach, North Carolina, etc.)

3. Activities:

- Place a check next to the words your child would use to communicate about **home activities**:

( ) bath time ( ) snack time ( ) play time
( ) bed time ( ) breakfast ( ) story time
( ) nap time ( ) lunch time ( ) watching TV
( ) dinner time

- Are there any specific **home activities** that your child would want to communicate about? (For example, baking cookies, playing on the computer etc.)

- Place a check next to the words your child would use to communicate about **community activities**

( ) ballet ( ) horseback riding ( ) Sunday School or church
( ) gymnastics ( ) soccer ( ) music
( ) swimming ( ) play group ( ) library
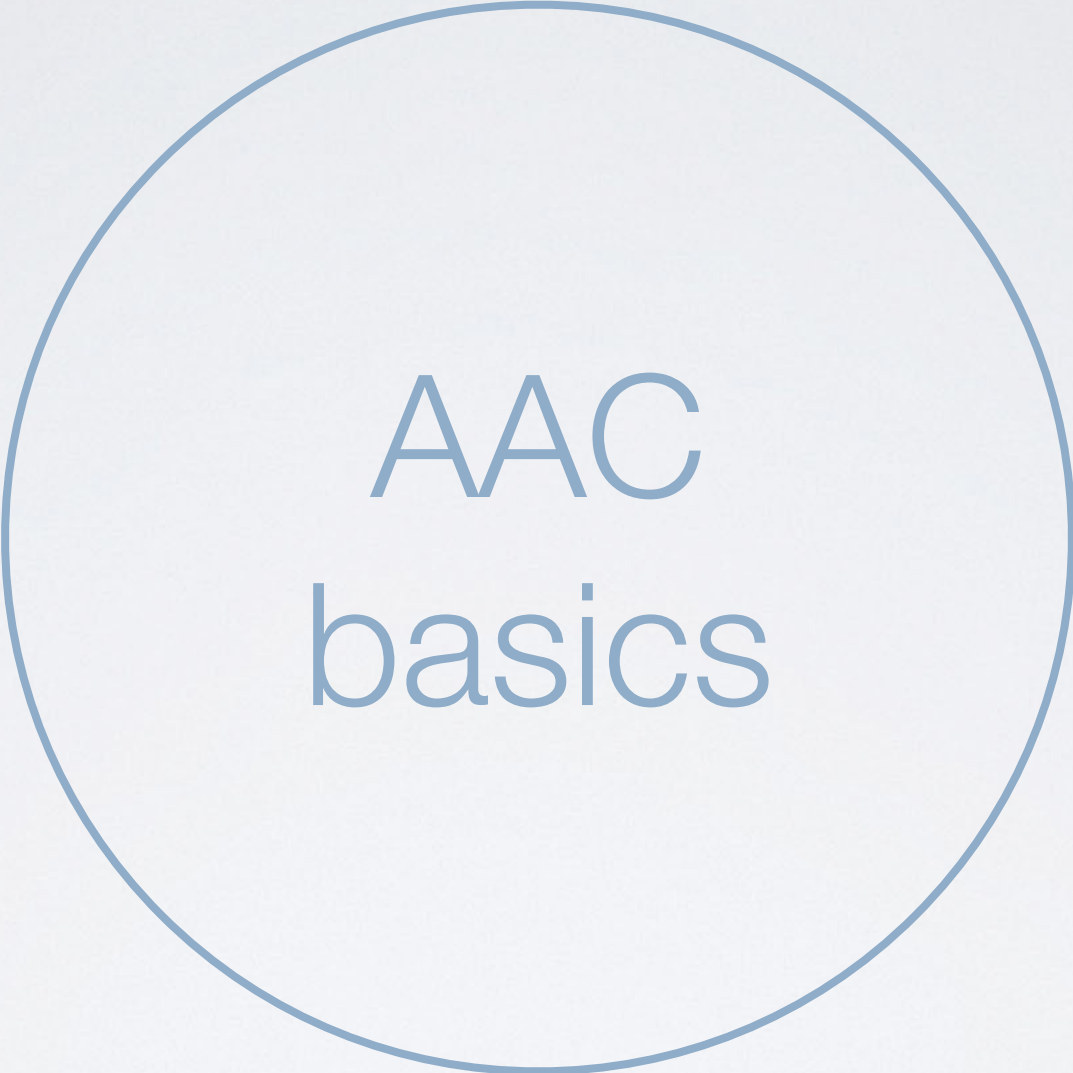
- Are there any special **community activities and/or social events** that your child would want to communicate about? (For example, birthday party, special holidays, fireworks, parade etc.)

- Place a check next to the words your child would use to communicate about **school activities**

( ) dress-up ( ) water play ( ) circle time
( ) housekeeping ( ) free play ( ) physical therapy (PT)
( ) sand table ( ) snack time ( ) occupational therapy
( ) computer ( ) lunch ( ) speech therapy
( ) videos ( ) playground ( ) field trip
( ) coloring ( ) nap time ( ) bus/van
( ) painting ( ) story time

Vocabulary Selection Questionnaire

Fallon, Light, & Paige, 2001

2. Provide an AAC training with hands-on time

AAC
basics

What is AAC?

- Augmentative and alternative communication (AAC) includes all forms of communication (other than oral speech) that are used to **express** thoughts, needs, wants, and ideas. We all use AAC when we make facial expressions or gestures, use symbols or pictures, or write.

- People with severe speech or language problems rely on AAC to supplement existing speech or replace speech that is not functional. Special augmentative aids, such as picture and symbol communication boards and electronic devices, are available to help people **express** themselves. This may increase social interaction, school performance, and feelings of self-worth.

Types of AAC

- **Unaided communication systems** – rely on the user's body to convey messages. Examples include gestures, body language, and/or sign language.

- **Aided communication systems** – require the use of tools or equipment in addition to the user's body. Aided communication methods can range from paper and pencil to communication books or boards to devices that produce voice output (speech generating devices or SGD's) and/or written output. Electronic communication aids allow the user to use picture symbols, letters, and/or words and phrases to create messages. Some devices can be programmed to produce different spoken languages.

Source: asha.org

Goals of AAC

- Increase participation and social interactions

- Express a range of communication functions including wants and needs, social communication, sharing information, and joint attention

- Develop a range of semantic concepts to support diverse communication

- Build a greater complexity of language structures (syntactic and morphologic) to support more complex communication

- Build phonological awareness and foundations for literacy development

Source: Janice Light

iOS 7
basics

iPad Secrets

Shortcuts

- Spotlight search

- Multitasking

- Hidden music control in Control Center

Camera

- Camera focus & zoom

Safari
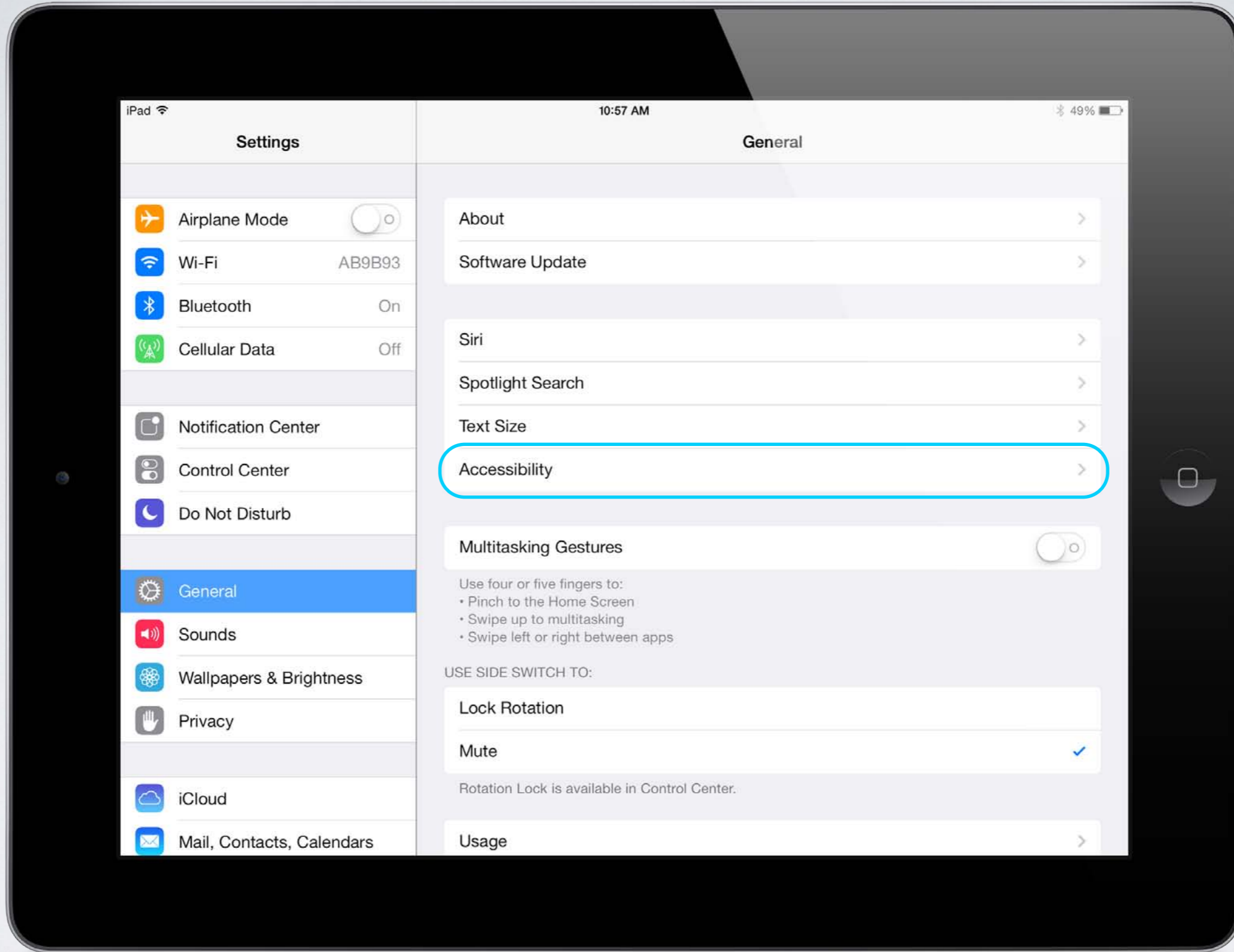
- Save Safari images

Photos
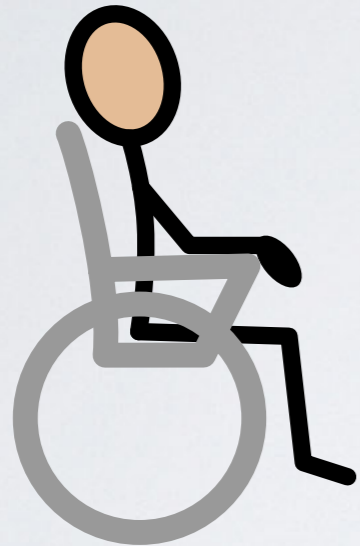
- Create photo albums

- Add to albums

iOS 7 accessibility

Settings app > General > Accessibility

Accessibility

Accessibility

Vision

Physical & Motor

Hearing

Learning

Settings	‹ General	Accessibility

Reduce Motion   Off ›

On/Off Labels   🟢

🛜 Wi-Fi   AB9B93

❋ Bluetooth   On

📶 Cellular Data   Off

HEARING

Subtitles & Captioning   ›

📳 Notification Center

🎛 Control Center

Mono Audio   🟢

🌙 Do Not Disturb

L   R

────────────────────────○──────────────────────────

⚙️ **General**

Adjust the audio volume balance between left and right channels.

🔊 Sounds

LEARNING

🌸 Wallpapers & Brightness

Guided Access   On ›

✋ Privacy

PHYSICAL & MOTOR

Switch Control   Off ›

☁️ iCloud

AssistiveTouch   Off ›

✉️ Mail, Contacts, Calendars

Home-click Speed   Default ›

📒 Notes

Accessibility Shortcut   Ask ›

Reminders

Settings

< **General**   **Accessibility**

Increase Contrast

Reduce Motion   Off >

📶 Wi-Fi   AB9B93

On/Off Labels   🟢

✳️ Bluetooth   On

📶 Cellular Data   Off

HEARING

Subtitles & Captioning   >

📋 Notification Center

Mono Audio   🟢

🎛 Control Center

L   R

🌙 Do Not Disturb

⚪

Adjust the audio volume balance between left and right channels.

LEARNING

⚙️ General

Guided Access   On >

🔊 Sounds

PHYSICAL & MOTOR

🌸 Wallpapers & Brightness

Switch Control   Off >

✋ Privacy

AssistiveTouch   Off >

Home-click Speed   Default >

☁️ iCloud

✉️ Mail, Contacts, Calendars

Accessibility Shortcut   Ask >

📒 Notes

📑 Reminders

Settings

‹ **General**

Accessibility

Reduce Motion
Off ›

On/Off Labels
🟢

📶	Wi-Fi	AB9B93
🔵	Bluetooth	On
📶	Cellular Data	Off

HEARING

Subtitles & Captioning
›

Mono Audio
🟢

L
R

Adjust the audio volume balance between left and right channels.

📱	Notification Center
🎚️	Control Center
🌙	Do Not Disturb

LEARNING

Guided Access
On ›

⚙️	General
🔊	Sounds
🌸	Wallpapers & Brightness
✋	Privacy

PHYSICAL & MOTOR

Switch Control
Off ›

AssistiveTouch
Off ›

Home-click Speed
Default ›

☁️	iCloud
✉️	Mail, Contacts, Calendars
📒	Notes
▦	Reminders

Accessibility Shortcut
Ask ›

Demo

Tutorials

Apple   Web Highlighter   Yahoo!   Google Maps   YouTube   Wikipedia   News ▾   Popular ▾   AssistiveWa...gy Webinars

iOS: About Guided Access

Languages [English ▾]

Guided Access helps you to stay focused on a task while using your iPhone, iPad or iPod touch. Guided Access limits your device to a single app and lets you control which app features are available.

Use Guided Access to:

- Temporarily restrict your iOS device to a particular app
- Disable areas of the screen that aren't relevant to a task, or areas where an accidental gesture might cause a distraction
- Disable the hardware buttons

Tap **Settings** > **General** > **Accessibility** > **Guided Access** to set up Guided Access. From there you can:

- Turn Guided Access on or off
- Set a passcode that controls the use of Guided Access and prevents someone from leaving an active session
- Set whether the device can go to sleep during a session

Start a Guided Access session

- Open the app you want to run.
- Triple-click the Home button.
- Adjust settings for the session, then click Start.

Disable app controls and areas of the app screen

- Circle any part of the screen you want to disable.
- Use the handles to adjust the area.

Ignore all screen touches

- Turn off Touch.

Keep iPhone, iPad, or iPod touch from switching from portrait to landscape or from responding to any other motions

- Turn off Motion.

End a Guided Access session

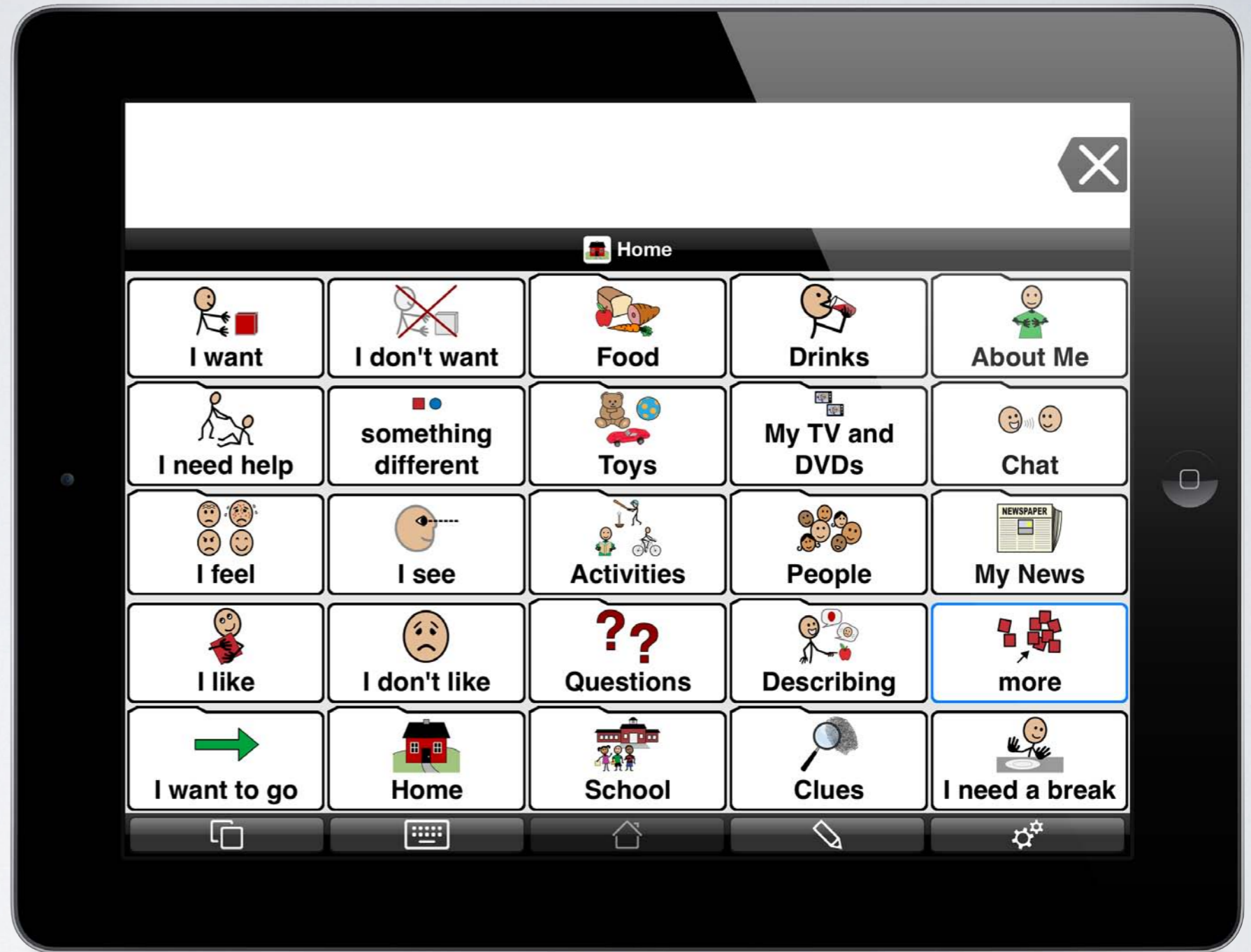- Triple-click the Home button.
- Enter the Guided Access passcode.

AAC with
iOS apps

Proloquo2Go

$219.99

- 2 research-based vocabs
- Over 14,000 symbols
- Natural sounding TTS
- Grid w/ conjug. & pluraliz.
- Typing with word prediction
- Multi-user support

Proloquo2Go Basics

- Add a user with the basic communication vocabulary

- Tap buttons to speak, combine buttons to speak from the message window, and navigate folders

- Edit a button's text and symbol. Add a button with a photo.

- Move buttons to priority levels (primary, secondary, storage)

- Navigate to different views and use them

- Conjugate verbs and pluralize nouns

Proloquo2Go Options

- **Options**

  - Appearance

  - Speech

  - Interaction

  - Grammar

  - Prediction

- Vocabulary

- Restrictions

- Backup

- Password

- In-App Help

What's new in p2g 3.0
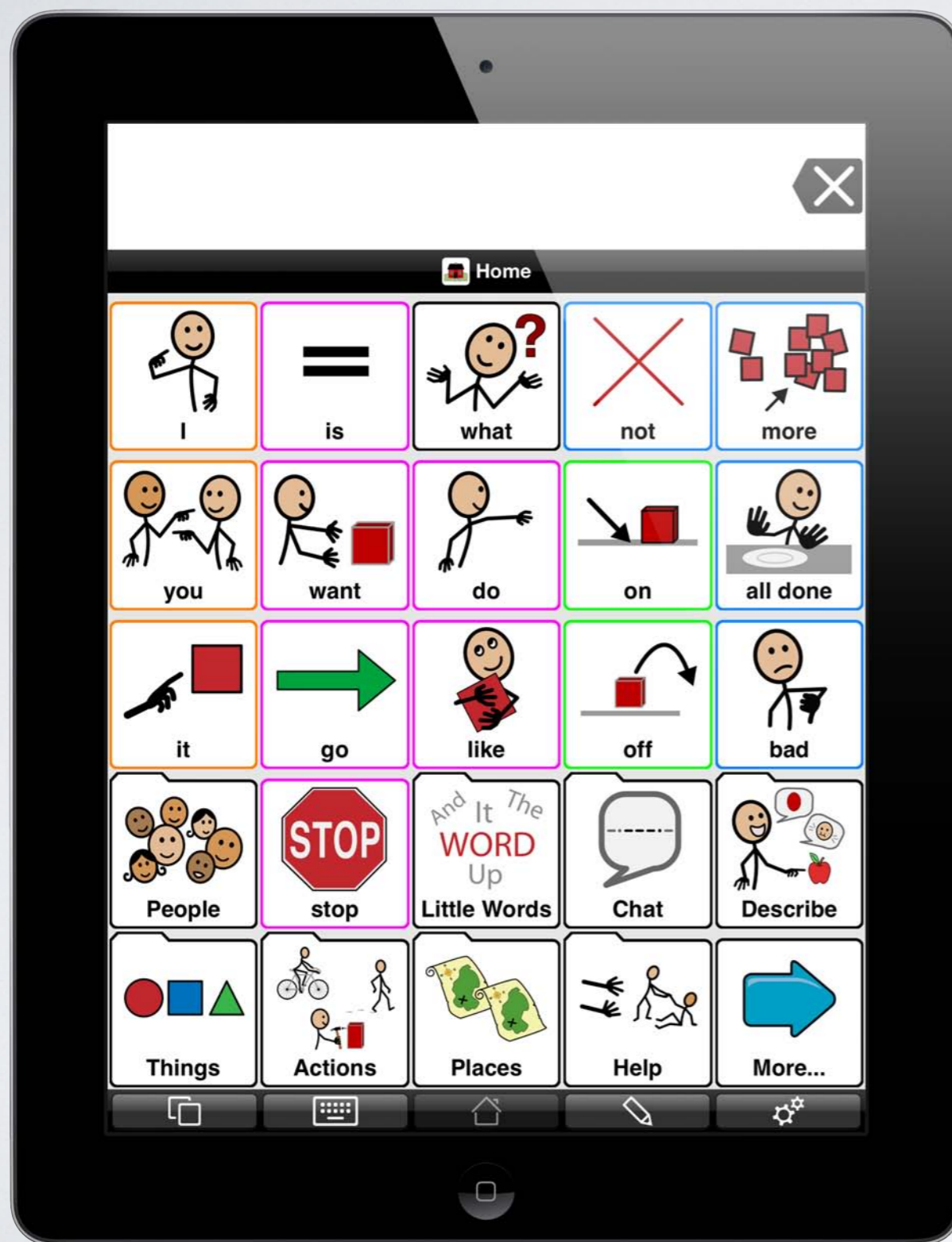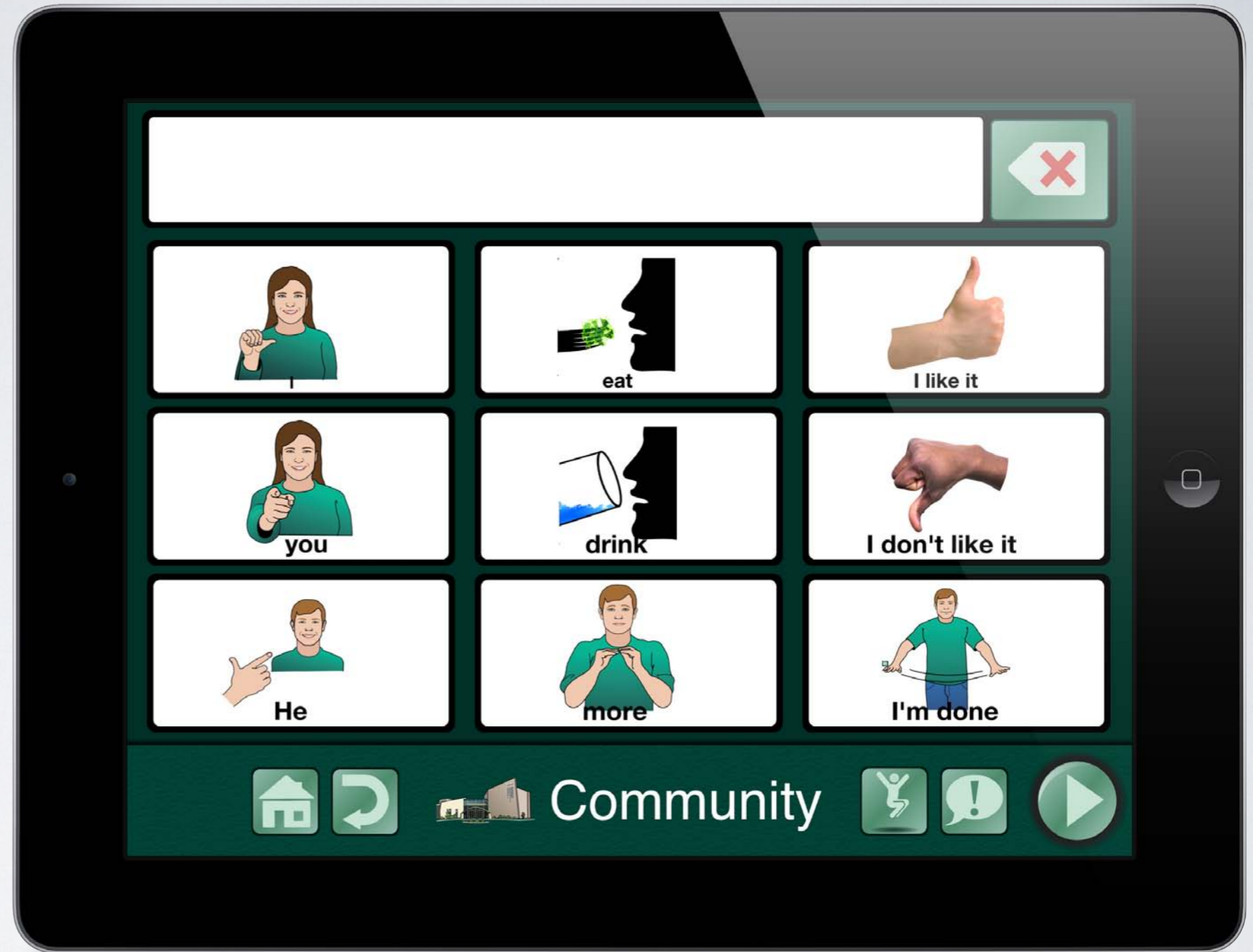
ExpressivePower

Macros

Social sharing

Switch access & scanning

External switches

GoTalk Now
Free/$79.99

- Create grid-based boards
- Create AAC scenes
- TTS and voice recordings
- Built-in image library
- Share boards in the full ver.
- Improved creating pages

3. Model AAC with Students

Strategies

- **Model via aided language stimulation** - point and/or touch the AAC device as you're speaking

- **Create frequent opportunities for AAC use** - use throughout the day for asking an answering questions, requesting, refusing, social interactions, etc.

- **Provide feedback via language expansions and recasts** - Expand user productions (e.g., "ball" —> "more ball") and recast to gently correct the user (e.g., "I like cookie" —> "I like cookies")

- **Prompt as needed** - Prompt the user by progressing through a prompting hierarchy

Source: praacticalaac.org

Press Esc to exit full screen mode.

0:00 / 6:34

Prompting Hierarchy

• **Natural Cues** - directions and instructions that are naturally part of the presentation of the question

• **Visual prompts** - point to the location of the targeted response with visual supports

• **Verbal and Gestural Prompts** - added cues that direct the student to use his/her response mode to respond to the question

• **Physical Prompts** - physical movement of a part of the student's body to gain a response to the question

4. Observe Staff and provide feedback

Staff Feedback

- Provide compliments regarding their AAC facilitation

- Discuss their execution of aided language stimulation and show them examples

- Mention how to create more opportunities for AAC use

- Discuss use of prompting

Contact
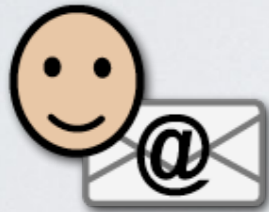
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