

## Communication Systems

*An OCALE Parent Package*








Ohio Department of Education  
Fostering a bright future for every child



ocali.org | 866.886.2254

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### Objectives

- Participants will understand every person's right to communicate
- Participants will understand how augmentative and alternative communication (AAC) can make a difference in an individual's life
- Participants will become aware of the wide range and types of communication systems available
- Participants will learn where to find more information



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### What is Communication?

*“Any act by which one person gives to or receives from another person information about that person's needs, desires, perceptions, knowledge or affective states”*

National Joint Committee for the Communicative Needs of Persons with Severe Disabilities (1992)



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## The Right to Communicate

- Communication is the essence of human life
- All people have the right to communicate
- No individuals should be denied this right



(American Speech-Language-Hearing Association, 2004)

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## What's the Law?

“All students with disabilities are entitled to a **free** and appropriate public education (FAPE) appropriate to their needs.”



IDEA (2004) 300.17; Operating Standards for Ohio Schools Service Children with Disabilities (2007) 3301-51-09(A).

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### Four Guiding Questions

Is the provision of an assistive technology device or service:

- Essential for the student to receive FAPE?
- Essential for the student to be educated within the least restrictive environment (LRE)?
- A necessary related service?
- Necessary for the student to have access to school programs and activities?

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### Assistive Technology Services

School district is responsible for:

- Evaluating the needs
- Obtaining/acquiring the device
- Training the student and families to use the device
- Training for professionals
- Coordinating therapies, interventions or services
- Maintenance, repair, and replacement as needed

IDEA, 2004, Part A, Definitions, 300.6

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### What does AAC stand for?

- AAC = Augmentative and Alternative Communication
- Augment or increase existing communication
- Alternative means of communication




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### What does AAC include?

AAC is "multi-modal" and includes any existing

- speech
- vocalizations
- gestures
- communication
- systems or devices
- manual signs



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### Why Use AAC?

- Participate in activities
- Interact in conversations
- Establish and maintain friendships
- Learn to read and write
- Reduce challenging behaviors
- Personal needs



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### Who is AAC for?

Any person whose current way of communicating limits:

- the **quantity** of their interactions
- the **quality** of their interactions



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### Will Using AAC Limit the Development of Speech?

- NO!
- AAC can help speech develop



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### Terms you might see

AAC Devices are also called:

- **VOCA** = voice output communication aid
- **SGD** = speech generating device

Types of speech are called:

- **Digitized** = recorded speech
- **Synthesized** = computer-generated speech



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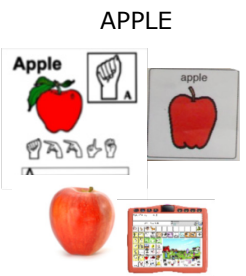
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### Types of Communication

- Gestures/Signs
- Objects
- Pictures
- Symbols/Icons
- Printed Words
- Voice-output



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### Types of Communication

**Gestures**

- Natural
- Universal
- Limited



**Sign Language**

- Can be simple or highly complex
- "Symbolic"- meaning may not be apparent
- Others need to know signs



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### Types of Communication

**Objects**

- Clear meaning
- Good for visually impaired children
- Good for simple messages
- Good for a limited number of messages



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### Types of Communication

**Pictures**

- Photos
- Line drawings
- PCS symbols (Boardmaker)
- Abstract representations (Minspeak)

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







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### What do these pictures mean?

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








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### What do these pictures mean?

Preparing Food

Help me please. 	Have to turn it on. 	Needs some more. 	Read the recipe. 
What are we making? 	Have to turn it off. 	Finished. 	Have to set the oven. 
When can we eat it? 	Have to open it. 	Let's be careful. 	What temperature? 

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### Types of Communication

#### Words



This is a word-based language system where the alphabet is near the top of the page and frequently-used words are available with just one button push.

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### Access

- Reach and touch --Direct selection
- Find and send messages with ease
- Keep most frequent messages or “core vocabulary” visible
- Establish a consistent motor pattern for accessing vocabulary

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### Access

- Headpointing
  - Use headstick or eye-gaze technology
- Scan choices highlighted
  - Use a switch to select

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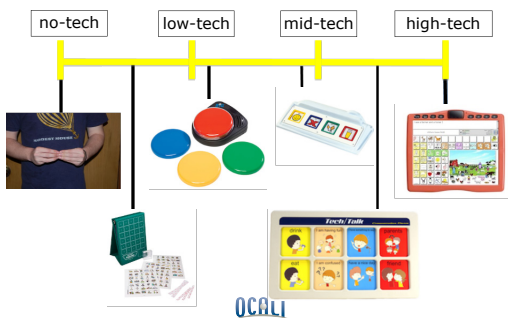
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### The AAC Continuum




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### The AAC Continuum No-Tech

Pointing  
Gestures  
Sign language





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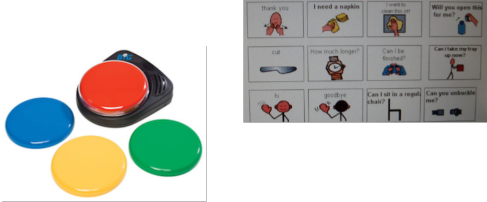
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### The AAC Continuum Low-Tech

Picture Symbols  
Single Message Devices



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### The AAC Continuum Mid-Tech

Digitized Devices  
Static Display



Tech/Talk



Go Talk

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## The AAC Continuum High-Tech

## Synthesized Devices

### Dynamic Display



Tobii ATI Eye Gaze



Proloquo2Go



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## How to decide what system is right?

- No standardized test
- Valid assessment
  - natural communication behaviors
  - in daily routines
- Team approach essential



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## Feature Match

Strengths,  
capabilities and  
communication  
needs



## Features of AAC System

			
	<b>Smartphone</b> Android, iOS	<b>Tablet</b> Android, iOS	<b>Smartnotebook</b> Windows
• Cost	Expensive	Expensive	Expensive
• Size / weight	Expensive	Expensive	Expensive
• Hardware resources	Expensive	Expensive	Expensive
• Software resources	Expensive	Expensive	Expensive
• Device type	Expensive	Expensive	Expensive
• Device style	Expensive	Expensive	Expensive
• User interface	Expensive	Expensive	Expensive
• Performance	Expensive	Expensive	Expensive
• Types of mounting	Expensive	Expensive	Expensive
• Specific language	Expensive	Expensive	Expensive



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### What Messages are Important?

- Messages appropriate to:
 

Age

Gender

Daily life

Interests

Life experiences










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### What Messages are Important?

Activity:

- Draw a 4 x 8 grid on a piece of paper
- Write at least 16 vocabulary items into your grid you think your student/child needs to use
- Think about vocabulary that is "functional" – words that would be used in everyday life



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### What Messages are Important?

- Look at the vocabulary you selected
- Did you have any of the following?
  - Eat
  - Drink
  - Bathroom



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## First 15 Words

### First Words:

all done	like	mine
more	stop	that
want	what	you
go	help	here
I	it	get

from Banajee, M., DiCarlo, C., & Buras-Stricklin, S. (2003). Core Vocabulary Determination for Toddlers, Augmentative and Alternative Communication




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## Selecting the Right Messages

### Plan for powerful messages

- influence other people
- play and have fun




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## Selecting the Right Messages

### Plan fun activities

- create messages around activities
- allow for choice-making and participation




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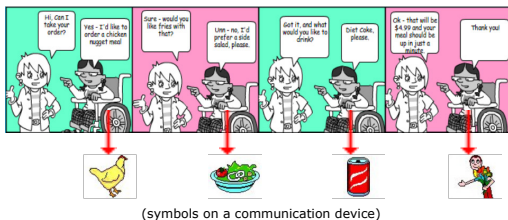
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## Selecting the Right Messages

Write "scripts" that allow:

- Participation in routines
- Back and forth exchanges



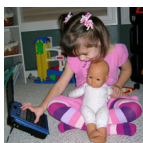
(symbols on a communication device)

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## Model How to Communicate

*An individual needs to be shown how to use AAC*

- Model by using individual's AAC system as you speak
- Model how to use symbols to say real things in real situations in natural contexts throughout day



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## Internet Resources

1. OCALI Assistive Technology Resource Manual 2008  
[http://www.ocali.org/view.php?nav\\_id=60](http://www.ocali.org/view.php?nav_id=60)
2. AAC Institute - Parent's Corner  
<http://www.aac institute.org/Resources/ParentsCorner/intro.html>
3. AAC Basics - Assistive Technology Training Online Project at the University of Buffalo  
<http://atto.buffalo.edu/registered/ATBasics/Populations/aac/>
4. Listing of Types of AAC Devices - AAC TechConnect  
<http://www.aactechconnect.com/aacinfo.cfm>
5. YAACK: Review of common myths and fears associated with using AAC with young children:  
<http://aac.unl.edu/yaack/b2.html>
6. Resources for vocabulary for AAC  
<http://aac.unl.edu/>
7. Center for AAC and Autism  
<http://www.aacandautism.com/>

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