

Augmentative Communication Implementation



Presented by
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Adapted from:

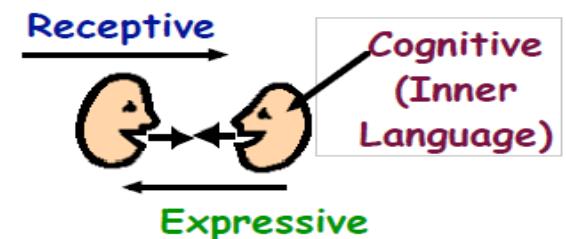
- Carol A. Page, PhD, CCC-SLP, ATP, SC Assistive Technology Program, CDR, USC School of Medicine

With special thanks to:

- Stacy Springer, MS, OTR/L, ATP
AT Specialist, SC Dept. of Ed.

Did you know that AAC can...

- ▶ Expand expressive language (e.g., vocabulary, syntax, sentence length)
- ▶ Improve receptive language
- ▶ Provide a means for communicating a variety of communicative intents
- ▶ Allow communication that is multi-modality
- ▶ Provide a framework for learning through interaction/play and active participation
- ▶ Provide a means for self-talk and cognitive processing
- ▶ Facilitate speech



Did you know that AAC can...

- ▶ Make language visual & more concrete
- ▶ Improve social interaction
- ▶ Be a method for communicating, indefinitely or short-term
- ▶ Reduce frustration and behavior problems
- ▶ Provide support for other emergent skills (i.e. literacy, math)
- ▶ Assist children learning a second language
- ▶ Improve self concept, self esteem, self competence



Not just for one child – AAC supports can be used with all children, with and without special needs

A closer look at communication...



- ▶ Communication is not just speech
- ▶ Communication involves: messages that are exchanged between individuals through language, that help them take part in everyday activities and function in society
 - a common system of symbols, signs, or behaviors (e.g., verbal words, signs, gestures, picture symbols, etc.)
- ▶ Don't overemphasize speech or any other symbol system at the expense of communication. 90% of communication is nonverbal (Evans et al., 2003)

Common Characteristics of AAC Communicators

- ▶ Passive communicators
- ▶ Initiate few interactions
- ▶ Respond infrequently
- ▶ Produce limited number of communication functions or intents
- ▶ Use restricted language forms
- ▶ May not use their system!



Factors of Success for Beginning AAC Communicators, and Partners...

Motivation of AAC User
To Pursue Task

Motivated to use messages, activity, with partners we've selected?

**Success or
Failure of
AAC Use**

Physical Effort +
Cognitive Effort +
Time Load +
Linguistic (Language) Effort

=

Is the system matched to child's language ability, physical ability....

Factors of Success for Beginning AAC Communicators



- ▶ Did you know....The typically developing child will have been exposed to oral language for approximately 4,380 waking hours by the time he begins speaking at about 18 months of age. If someone is using a different symbol set and only has exposure to it with the speech pathologist two times a week for 20–30 minutes each time, it will take the alternate symbol user 84 years to begin communicating!
- ▶ A very important factor is exposure/practice.
- ▶ It's important to have experience with communication symbols in a symbol rich/print rich environment– along with speech.
- ▶ Expect what is developmentally appropriate! Do what is developmentally appropriate!



Factors of Success for Beginning AAC Communicators



- ▶ Did you know....The typically developing child will demonstrate language competency around 9–12 years of age having been immersed in and practicing oral language for approximately 36,500 waking hours. For 9–12 years that child has been using and receiving corrective feedback while practicing with the spoken word. If only the Speech Pathologist works with a child twice a week for 20–30 minutes each time, it will take the alternate symbol user 701 years to have the same commensurate experience with his symbols!
- ▶ Don't expect automatic use of alternate systems– – language and communication develop over time, with everyone's help. There's a lot to learn...

What's more important:

AAC device or communication?

Do any of you get stuck on the device before you immerse the child in communication?



Maggie, 2yrs old



- ▶ Vocalizes
- ▶ Points to and looks at what she wants
- ▶ Loves to interact with her 3 yr old brother
- ▶ Likes looking at books, playing with baby doll, eating snacks
- ▶ Refuses to use picture symbols that she was given

What do you do?

Vocalizes

Points to and looks at what she wants

Loves to interact with her 3 yr old brother

Likes looking at books, playing with baby doll, give another

Refuses to use picture symbols

What questions would you ask – no right or wrong a



Potential Questions to ask:

1. -- •Is the activity motivating/?
2. -- •Are the messages motivating?
3. -- •Is the partner motivating?
4. -- •Are partners using the system?
5. -- •Are messages at her language level
(single words)?
6. -- •Are symbols at her symbol level?
7. -- •Are there too many messages?
8. -- •Are you sure about vision/motor/other
sensory abilities?
9. -- •What teaching strategies are you using
(e.g., following lead, imitation,
reinforcement, shaping with choices,
incidental teaching)?

Recap

For Successful AAC:



- ▶ Focus on communication – not the technology
- ▶ Use multiple systems and multiple modalities of communication
- ▶ Target participation and active learning
- ▶ Learn language through natural immersion in language and in everyday activities
- ▶ Find a balance if multiple challenges are present
- ▶ Motivation is key!
- ▶ Everyone has to play a part. Everyone uses the system. AAC implementation should be an on-going, dynamic team process

What do we do?

Tips for Choosing Vocabulary

- ▶ Choose highly-motivating vocabulary, especially when AAC is first introduced. This includes favorite games, hobbies, food, friends, music, and other activities.

Bubbles or math? You or Mom? On Mom's hand or foot?

- ▶ Use of the vocabulary should provide a big pay off.
- ▶ Choose vocabulary beyond choice making.

“Do you want bubbles or blocks?” If “bubbles” is chosen, provide other communicative intents-- for the child to **comment** (yucky, yeah, oh no), **express a turn** (my turn), **direct** (stop, blow + up, blow + on the fan), and more

- ▶ Vocabulary should indicate that it is the child talking and not the adult. Include peer vocabulary.

Choosing Vocabulary

- Avoid choosing messages that can be communicated in other ways (e.g., may gesture or vocalize “yes” and “no”), especially true for beginning AAC users
- Avoid messages about functions the child has not mastered (i.e., “bathroom”)
- Change messages as the child’s needs, interests, and activities change



Communicating with Daddy

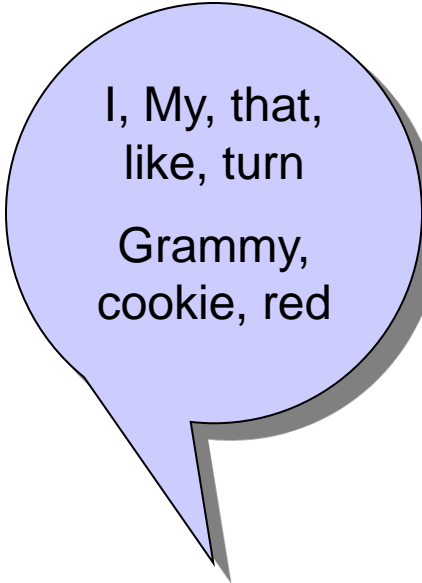
Choosing Vocabulary

The messages or vocabulary we pick can make or break use of an AAC system (Page, 2010).

▶ Core and Personal/Fringe Vocabulary:

- Core -- a few hundred words that make up approximately 80% of what a person says
 - Generally consistent across people, ages, environments, activities
- Personal/Fringe -- generally specific to particular environments, activities, or people

Be sure to include both core & personal/fringe vocabulary for fastest communication



I, My, that,
like, turn

Grammy,
cookie, red

Choosing Vocabulary

With the right words, we can communicate in many different activities...



Include Quick Messages

▶ Communication Intents:

- I want something
- Something's wrong
- I'll tell you what I think (or I like and I don't like)
- It's time for something
- Let's chat
- I'm asking a question
- Let's pretend
- I have an idea
- I'm telling you a story

▶ Core Vocabulary:

- more
- done
- different
- me, mine, my turn
- you, yours, your turn
- someone else
- hurry
- uh oh!
- help

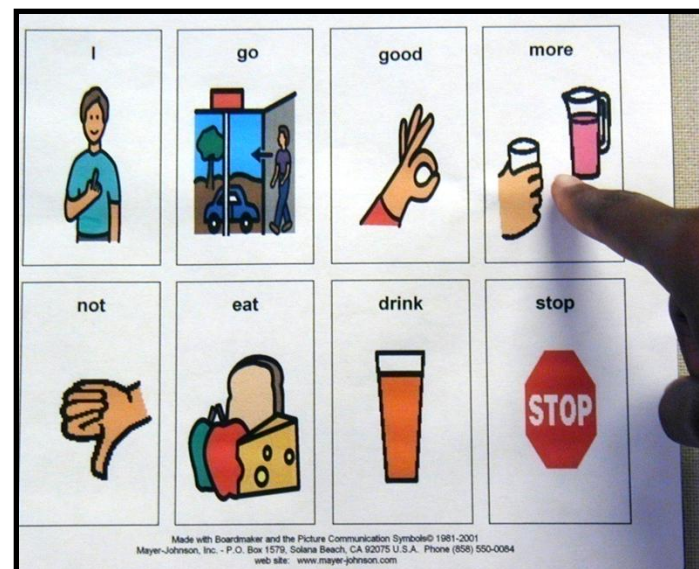
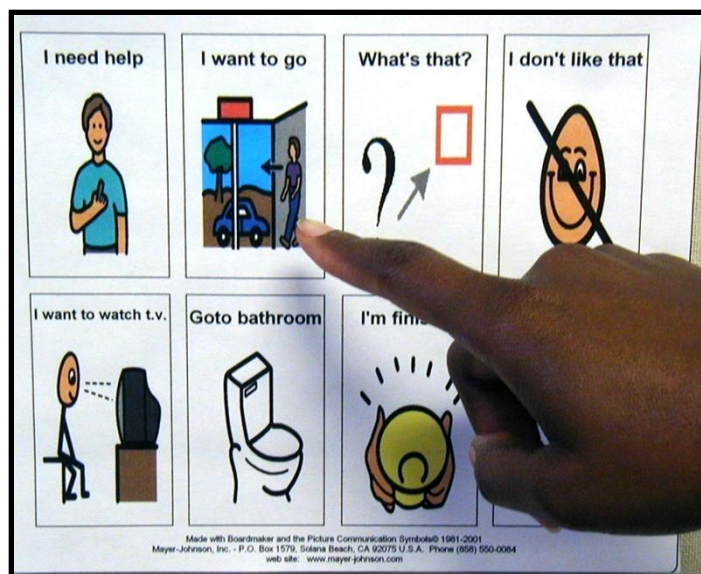
Linda Burkhart

Choosing Vocabulary

(Anderson & Baker, 2004)

Use single-word messages whenever possible

- ▶ They allow for generative language and utterance expansion. It promotes learning word order (syntax).
- ▶ For the beginner, it lets you highlight key words.



With the right words, we can say a lot...

Choosing Vocabulary



- ▶ Many reasons to use single-word messages:
 - Allows more flexibility than sentence messages
 - Is easier overall than communicating through sentence messages
 - Can be used across environments more easily (re-useable)
 - Facilitates language acquisition -- single-word messages are combined to make multi-word messages

Active Participation

- ▶ Children with significant challenges who become passive learners may have difficulty communicating, interacting and/or understanding what is going on around them using current systems
- ▶ Providing opportunities for control
 - ✓Choice making
 - ✓Setting up the environment for motivation and success
 - ✓Making situations fun (e.g., sabotage)
 - ✓Child-directed activities. Following child's lead



Opportunities for Active Participation

Communication Activities/Games – Carpet Play Square



Choice-Making



Too many choices, so little time.....

- ▶ Empowers the child. Helps him feel in control.
- ▶ Three basic set-ups:
 - Two favorite things.
 - One favorite thing and one least favorite.
 - One favorite thing with recorded voice message and one blank voice message.

Topics for Choice-Making



- Foods and Drinks
- Toy Choices
- Activity Choices (games, computer, swimming)
- Places (stores, restaurants, library, playground)
- Material Choices (crayons, paper, utensils)
- Clothing and Shoes (colors, clothing items)
- Actions (go, stop, come, eat, drink, sleep)
- People
- Feelings (happy, sad, angry, like, don't like)
- Songs

Go beyond nouns

Errorless Choice-Making



All children can participate in the song...

"This is the way we wash our _____."

So many choices....



- ▶ Provide choices that matter
 - Who (to sit next to, take turn)
 - What (song lines)
 - When (order of events)
 - Where (to put things, places)
 - How (to sing fast/slow; loud/soft)
 - Order of events (books, songs)

Choice-Making using Labels as Symbols

Choice Board on Mat Board Using Product Labels



Expand Beyond Choice Making

- ▶ Communication is not just ‘choice making’
- ▶ ‘COMMUNICATION’ means that we don’t already know what the person wants to say
- ▶ Some children are most interested in the social process, not the message



Linda Burkhart
www.lburkhart.com

Some Communication Strategies To Use

- ▶ Encourage Partners to:
 - Model AAC use.
 - Give choices.
 - Provide an “expectant” delay and wait.
 - Ask open-ended “wh” questions.
 - Provide brief prompts to the AAC user.
 - Use a “least-to-most” prompting hierarchy.
 - Provide communication opportunities for the child throughout the day. No drills.



Effective Communication Partners

- ▶ Encourage Partners to:
 - Ask permission to anticipate/finish the individual's message.
 - Interact at eye level.
 - Pay close attention to facial expressions, body posture, and gestures.
 - If you don't understand, admit it.
 - Repeat and confirm messages.
 - Promote peer interactions. Try a “buddy” system.



Recap & More Strategies to Try...



- ▶ Ensure adequate positioning, lighting, loudness, and access to vocabulary symbols.
- ▶ Arrange environment to create motivating communication opportunities —
 - ▶ omitting a step or using the wrong item, placing something out of reach, choosing



- ▶ Everyone uses the system. Interactively **model** the use of AAC (Beukelman & Garrett, 1988; Goossens', Crain, & Elder, 1992; Musselwhite & St. Louis, 1982).
 - ▶ Parents and peers can be great models.
 - ▶ Vocabulary and sentence structures not yet expressed by students should be modeled by the communication partners “. . . just beyond the current productions of the child, although within the child’s receptive capabilities” (Light, 1997, p. 168).

Aided Language Stimulation



Model by highlighting key words:

- ▶ Communication partner highlights (points to, shines a flashlight beam on) symbols on the child's communication system while talking to the child.
 - ▶ Example: Point to pictures of “put,” “pudding,” “in,” and “bowl” while saying “Put the pudding mix in the bowl.”

Goossens', 1989, Goossens' and Crain, 1986a, 1986b

Facilitating Strategies



- ▶ Provide prompts
 - Hand over hand, demonstration, gesture, nudge/touch
 - Use least intrusive prompt possible
 - Fade as quickly as possible

- ▶ Follow communication behavior with a consequence. Respond to and reinforce a child's many ways of communicating.



Voice output
can also be a
motivator

Low Tech Voice Output



Big Mack by AbleNet



Chipper by Adaptation



Partner/Plus by AMDi

Low Tech Voice Output



**Partner
Plus/Stepper by
AMDi**



Sequencer by Adaptivation

Little Step-by- Step by AbleNet



- "color, cut, paste"
- Pledge of Allegiance

Single Message, Sequential Messages, and Randomized Messages Voice Output



- ▶ Use single message devices to help children actively take part in activities, interact with others, follow directions, and more.
- ▶ Remember to use them along with other options (such as multiple message overlays) to allow children to participate and spontaneously communicate.

Low-Tech Communication Aids



Augmentative Resources

Low-Tech Communication Aids

Add Communication Symbols to Play Toys



Mid-Tech Voice Output



**Communication
Builder by Enabling
Devices, Inc.**

Tech Speak by Saltillo



SuperTalker by AbleNet

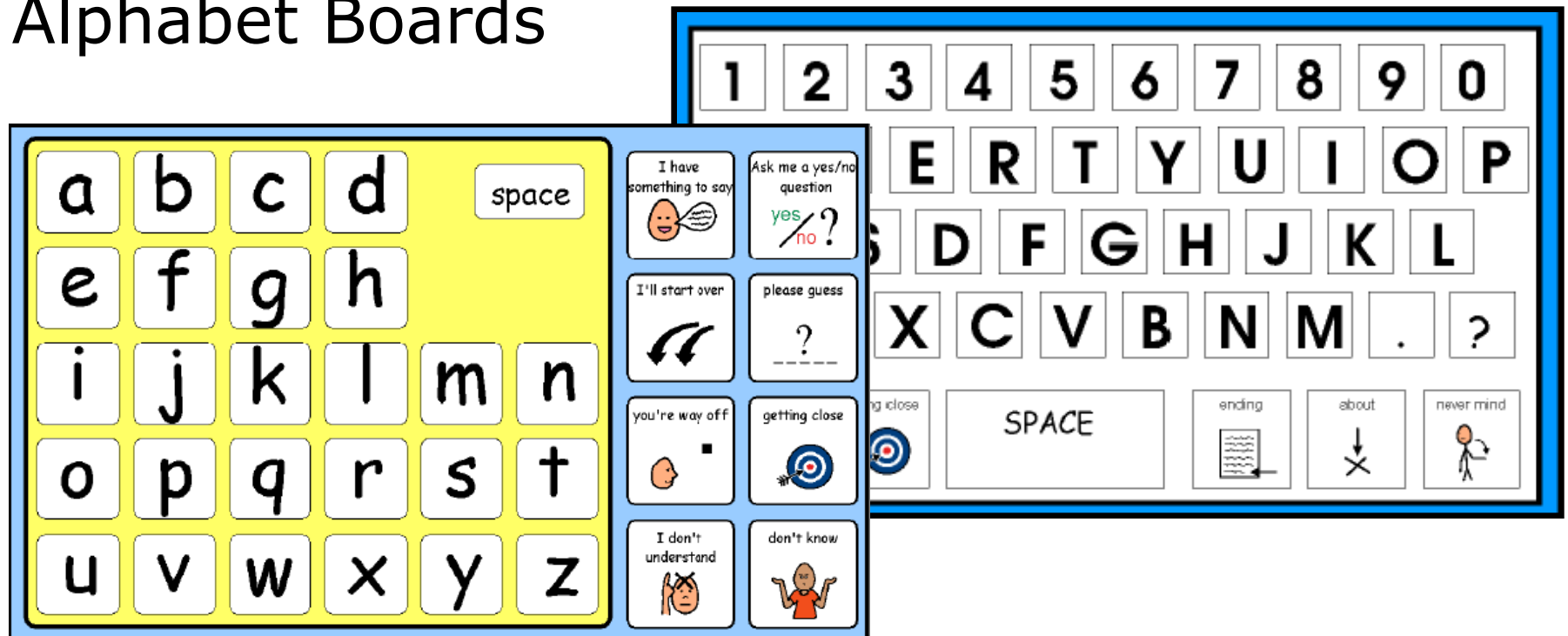
High Tech Voice Output Communication Aids



**Proloquo2go Software for
iPod Touch or iPhone Touch
By Origin Instruments Corporation
<http://www.orin.com/access/Proloquo2Go/>**

Low Cost AT Solutions: Communicating with Text

Alphabet Boards



www.setbc.org/pictureset/resources/letter_boards/letter_board.pdf

Implementation Plan

Decide:

- ❑ which motivating activity(ies) & messages with which to start.
- ❑ which symbols, sizes of symbol, placement, no. of symbols, dynamic vs. static screens..., the child likes and uses best now, & which the team prefers and can program/use now.
- ❑ which settings, with who.



What else can we use this checklist for?–
ANSWER: assessment, troubleshooting,



Implementation Plan

- which teaching strategies you will use. Plan to emphasize natural language teaching within ongoing activities & interactions. Use a hierarchy of prompts to teach as needed. Add texture, use “visual highlighting,” make tasks funny/silly by omitting steps, pause, place favorite items out of reach, etc.
- which motor movements are easiest now (specify direct selection vs. scanning to access the system). Consider fatigability. Don’t worry about refining motor access right away. Address positioning & stability of materials.


Reflect these items in your treatment objectives.

Failure v. Success for AAC Device Users

<i>We are leaving the device behind because...</i>	<i>We are definitely taking the device along with us because...</i>
There's a vague chance it might get rained on.	You are a grown-up and grown-ups talk for themselves.
We are going to eat and you might spill on it.	I am not your mother and I won't talk for you.
We are going to get a drink and you might spill or drool on it.	You need to order for yourself at the restaurant.
It might get lost or stolen.	People treat you with more respect when you talk for yourself.
It might get broken on the van.	It was made to be carried around and can be fixed if something goes wrong.
It's too much trouble to carry around.	You are going to meet new people who you can talk to by yourself.
The battery might run down if we take it.	You will need it to get what you want. Without it, you are going to do without.
We don't want you talking to strangers.	We don't know what you might need to say, but we know you will have chances to talk.
Someone might steal it.	People treat you the way you expect to be treated. And you expect to be treated as well as a person who can communicate.
We might leave it behind.	It's too important to be left behind.
I know what you need to say and I can talk for you.	I can't read your mind.

Prentke Romich, 2000

Evaluate Effectiveness of AAC Use



Plan for Evaluation of Effectiveness of AT Use

Student's name: _____ Grade: _____ Date: _____
 School/agency: _____ Team members present: _____

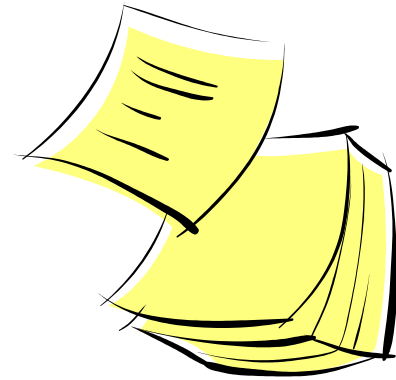
The intent of this document is to guide planning about how the use of assistive technology will be evaluated. Completion of this document will help the team to create a shared vision of the process for data collection.

IEP Goal: _____

+ Step 1: What is the present level of performance (baseline data) on this goal?	Describe:
Step 2: What changes are expected as a result of implementation? (e.g. Student will be able to ____.)	Describe:
Step 3: What aspects will change? <input type="checkbox"/> quality <input type="checkbox"/> independence <input type="checkbox"/> quantity/productivity <input type="checkbox"/> spontaneity <input type="checkbox"/> frequency <input type="checkbox"/> duration <input type="checkbox"/> participation <input type="checkbox"/> _____	Describe:
Step 4: What obstacles may inhibit success? <input type="checkbox"/> physical access <input type="checkbox"/> skill	Describe:

http://natri.uky.edu/assoc_projects/qiat/documents.html

A Few Website Resources to Try



- ❑ www.aac institute.org
- ❑ www.Lburk hart.com
- ❑ www.dynavox tech.com/training/toolkit
- ❑ www.Do2Learn.com
- ❑ www.wati.org
- ❑ www.trainland.tripod.com/pecs.htm
- ❑ www.aac intervention.com
- ❑ <http://aac.unl.edu/yaack/index.html>
- ❑ <http://atto.buffalo.edu/registered/ATBasics/Populations/aac/index.php>



South Carolina Assistive Technology Program

- Home
- AT Resource Center
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- About Us

Welcome to SCATP!

The South Carolina Assistive Technology Program (SCATP) is a federally funded program concerned with getting technology into the hands of people with disabilities so that they might live, work, learn and be a more independent part of the community. As part of a national network of technology-related assistance programs, our goal is to enhance independence, productivity and quality of life for all South Carolinians through access to assistive technology devices and services. We provide an [equipment loan and demonstration program](#), an [on-line equipment exchange program](#), [training](#), technical assistance, [publications](#), an [interactive CDROM](#) (SC Curriculum Access through AT), an [information listserv](#) and work with various state committees that affect AT acquisition and IT accessibility. We link people with technology and work with consumers, service providers, state agencies and policy makers. Our [2009 Program Summary](#) is on-line.

AT EXPO 2010!

SCATP Resources	AT and ...	What's New?
<ul style="list-style-type: none">StaffResource CenterPublications/Fact SheetsDevice Loans	<ul style="list-style-type: none">EducationCommunicationTransition from High SchoolComputer Access	<ul style="list-style-type: none">SC AT Online ExchangeLatest AT InnovationsSCDE AT SpecialistsSuccess Stories



South Carolina Assistive Technology Program

[Home](#) [AT Resource Center](#) [Online AT Exchange](#) [Trainings](#) [About Us](#)

A Quick Guide to AAC

Augmentative and Alternative Communication (AAC) temporarily or permanently compensates for impairments of individuals with severe disorders of speech-language production and/or comprehension (ASHA, 2004).

AAC often includes learning a new symbol and language system that is organized on a communication board or device.

First Things First: Assessment	Implementation
Object, Photo, or Picture Symbols	Functional Communication
Message Selection	Troubleshooting
AAC Devices	Resources

By Carol A. Page, PhD, CCC-SLP, ATP

With special thanks to:



A worldwide resource for:

- * People with severe communication disorders or who cannot speak, their families and friends
- * Professionals and Educators
- * Researchers, Developers and Manufacturers
- * Funding and other Parties



[AAC Funding: Stand Up Against Preferred Provider Arrangements](#)

[Activities](#)



ASHA Student Awards

[Sponsors](#)



Welcome to the AAC Institute!

We are a not-for-profit, charitable organization dedicated to the most effective communication for people who rely on augmentative and alternative communication (AAC).

The two most important values expressed by people who rely on AAC are:

- 1) saying exactly what they want to say, and
- 2) saying it as fast as they can.

AAC services must honor these values of people who use AAC and their families. Achieving the goal of AAC (optimal communication & maximum potential) is best accomplished when the principles of evidence-based practice and performance measurement are used.

What's New?

- [Pixons are here!](#)
- [AAC ConsumerNet](#)
- [Exhibits](#)
- [Word Prediction Research Papers](#)
- [Most recent AAC Institute Update!](#)

[Hall of Honor Memorials](#)

Every time you search



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(Pragmatically Organized Dynamic Displays) by Gayle Porter (Melbourne, Australia)

[US Letter Size Version of PODD is NOW available](#)

Selected Upcoming Workshops and Presentations:

Multi-Modal Communication strategies for Children Who Have Complex Communication Needs - Introduction to PODD

LEARNING PATHS

Our Learning Paths will present information on particular topics in pieces that are manageable for time and content.

[Teaching Vocabulary in InterAACT](#)

How do you teach the vocabulary in InterAACT? These lesson/therapy plans contain activities that will help you. Use them in 1:1 or group sessions as well as in classrooms. They can be modified for individuals varying in age and language skills.

[AAC Myths Revealed](#)

Beliefs about AAC exist among families, caregivers and professionals. Some are true, others are false. Our "AAC Myths Revealed" series discusses common myths about AAC and the research that proves them to be inaccurate.

[Opening the Box](#)

These resources are designed to assist you in "opening the box" to successful communication. Use these resources if you have just received your device or would like an orientation to the Series V. We will help you create a custom user based on age and communication ability, learn the language and ...

[Communication Partner Techniques](#)

Communication partners and assistants play an important role in enhancing independence in communication and encouraging use of more complex language skills. The five techniques presented in these resources can be used to expand communication skills in AAC users of varying ages and communication abi...

[Autism and AAC](#)

Individuals with autism have unique strengths and needs. The resources in this learning path reveal the role of AAC for individuals with autism in the areas of communication, socialization and behavior.

[Tools for AAC Users](#)

The handouts and worksheets in this learning path share ideas that will assist AAC users in

MY FAVORITES

NEWEST RESOURCES

MOST POPULAR

Augmentative and Alternative Communication (AAC) Connecting Young Kids (YAACK)



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Communication Needs

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Overview

Authors: [Julie Maro](#) and [Lori Tufte](#)

An introduction to augmentative and alternative communication (AAC) for students 5-10 years old is addressed in this module.

Designing quality programs for students who have AAC needs involves engineering communication environments, organizing and training team members, and developing appropriate lessons and materials. Strategies for achieving these goals will be presented.

Philosophy

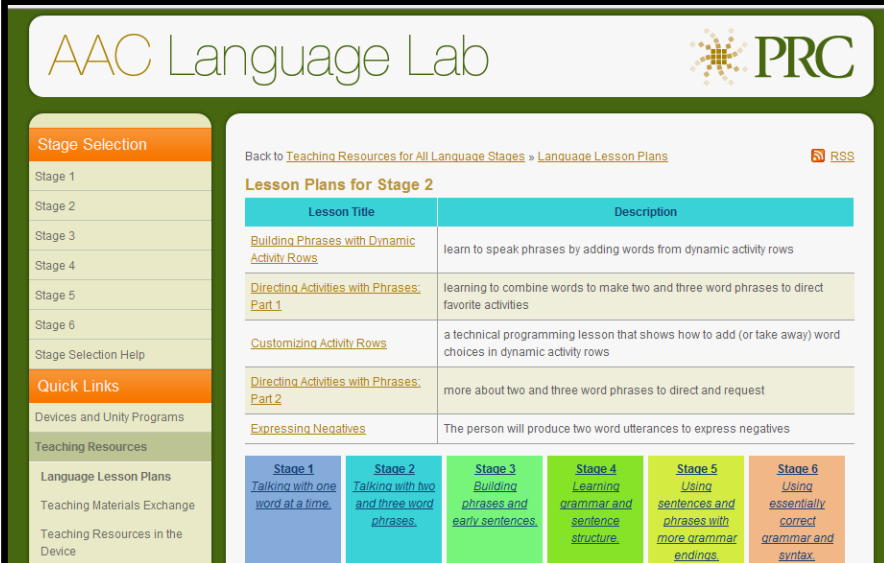
- Using speech and language principles to develop appropriate goals and objectives for AAC students helps practitioners incorporate speech, semantics, syntax, and pragmatics objectives into their lessons.
- Communication is a [process](#).
- A team approach is critical when assessing and teaching students how to use AAC systems.

Overview**Where to Begin****Considering AAC****Vocabulary Selection****Vocabulary Presentation****Representing Vocabulary****Visual Environments****Finding Pictures****Ideas for Students****Social Skills**

Implementation Resources

AAC Language Lab

1. Language Lesson Plans
2. Teaching Materials Exchange
3. Teaching Resources in the Device
4. The Unity Curriculum
5. Language Partner Resources
6. Teaching Resources RSS Feed



The screenshot shows the AAC Language Lab website interface. At the top, there is a header with the AAC Language Lab logo and the PRC logo. Below the header, there is a navigation menu with options like Stage Selection, Quick Links, and Teaching Resources. The main content area displays lesson plans for Stage 2, including titles like 'Building Phrases with Dynamic Activity Rows', 'Directing Activities with Phrases: Part 1', 'Customizing Activity Rows', 'Directing Activities with Phrases: Part 2', and 'Expressing Negatives'. Each lesson plan includes a description of the activity. At the bottom of the page, there is a navigation bar with buttons for each stage from Stage 1 to Stage 6, each with a brief description of the stage's focus.

Lesson Title	Description
Building Phrases with Dynamic Activity Rows	learn to speak phrases by adding words from dynamic activity rows
Directing Activities with Phrases: Part 1	learning to combine words to make two and three word phrases to direct favorite activities
Customizing Activity Rows	a technical programming lesson that shows how to add (or take away) word choices in dynamic activity rows
Directing Activities with Phrases: Part 2	more about two and three word phrases to direct and request
Expressing Negatives	The person will produce two word utterances to express negatives

Stage 1: Talking with one word at a time.
Stage 2: Talking with two and three word phrases.
Stage 3: Building phrases and early sentences.
Stage 4: Learning grammar and sentence structure.
Stage 5: Using sentences and phrases with more grammar endings.
Stage 6: Using essentially correct grammar and syntax.

<http://www.aaclanguagelab.com/resources/lessonplans/2>

Implementation Resources

- ▶ Acceleration Learning Implementation Toolkit

<http://www.dynavotech.com/training/toolkit/>



Resources:

1. Collection of video and print-based resources.
2. Provides resources for beginning communicators through the most experienced.
3. Appropriate to a variety of environments.
4. Downloadable print materials from handouts and worksheets to visual supports and datasheets.
5. “Learning Paths” present information on particular topics in pieces that are manageable for time and content.

**For more information or to borrow
AT equipment, contact the
South Carolina
Assistive Technology Program**



800-915-4522 803-935-5263
www.sc.edu/scatp