Implementation Strategies for Building Communication and Learning through AAC in the Classroom

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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 communicate through text, email, or a symbolic gesture.

AAC includes:

- **Low tech**: picture boards or books, communication symbols, sign language, voice output buttons/switches, PECs or PODD books

- **High Tech**: iPad with a Communication Apps, dedicated speech generating devices such as Tobii Dynavox I or T Series, VMax or V; Prentke Romich Company Vantage Lite or Accent, Saltillo NovaChat

[www.asha.org/public/speechdisorders/AAC](http://www.asha.org/public/speechdisorders/AAC)
AAC COMPETENCIES

Operational: skills required to operate AAC system(s)

Strategic: using AAC in every environment

Linguistic: receptive & expressive language skills

Social: pragmatic social skills using AAC system
Considerations of AAC within the UDL Framework

UDL Framework provides rich supports for learning and reducing barriers to the curriculum, while maintaining high achievement standards for all students.

Students with complex communication needs often have little participation in classroom groups and reading aloud.
AAC is a tool for Multiple Means of Expression

- UDL guidelines are met
- By providing options for expression and communication
- Optimize access to tools and assistive technologies
- Vary the methods for response and navigation
Operational Competencies

How do you operate the SGD (turning on/off, volume on/off, volume up/down, charging process)

Setting up User area (grid size, home page, language(s), password access, vocabulary builder or hiding buttons)

Programming personal information (photos of people, birthday, address, school, etc)

Voice matches AAC user

Access matches independent motor movements (whether eye tracking, touch enter or scanning)
What is YOUR perception of AAC?

- Student will stop talking if encouraged to use pictures
- The student has to use low tech before moving to high tech
- Some speech means AAC is not needed
- The student is too cognitively impaired to use AAC
- AAC is the responsibility of the SLP Alone
- The student has the ability to express basic needs so AAC is not needed
- AAC will fix communication needs/speech –
- AAC is used only in one environment – school not home or visa versa

WWW.dynavoxtech.com/implementation-toolkit/learning-paths/list/?id=7
Changing those Perceptions

- Training staff and family to be aware of perceptions
- Training on what communication supports are needed
- Requesting AAC consults through school system or IATP (state AT program)
- Ongoing training in order to implement – regular and consistent check-ins to insure change is occurring
Environmental Factors

- Where is the device?
  - 1-2 second rule
    - Always open
    - Always on
    - Always available

- How many opportunities are available to communicate using their AAC system? (1992, Goosen, Craine and Elder)
  - 200 opportunities a day!
The average 18 month old has been exposed to 4,380 hours of oral language at a rate of 8 hours a day since birth.

A child with a communication system & who receives speech therapy 2x week for 30 minutes will reach the same amount of language exposure in 84 years.

Jane Korsten, 2011, QIAT Listserve
Linguistic Competencies

- Receptive language skills (understanding and knowledge of language, understands symbols)
- Expressive language skills (language used expressively, uses symbols to communicate messages)

It’s another language!
<table>
<thead>
<tr>
<th>you</th>
<th>want</th>
<th>more</th>
</tr>
</thead>
<tbody>
<tr>
<td>go</td>
<td>help</td>
<td>not</td>
</tr>
<tr>
<td>like</td>
<td>look</td>
<td>all done</td>
</tr>
</tbody>
</table>
Linguistic Competency – Core Vocabulary

- Words that apply across activities/settings/environments
- Vocabulary primarily composed of pronouns, verbs, prepositions and descriptors
- Vocabulary is NOT noun based
- Consistent location of primary words (want, I, not, more, all done)
Research Studies related to Core Vocabulary

SCHOOL AGE
- Boenisch & Soto, 2015

PRESCHOOL
- Banajee, DiCarlo & Stricklin, 2003
- Trembath, Balandin & Togher, 2007
Get Talking!

- Partner with someone

- One partner uses their voice while the other partner uses the communication board(s) (1 at a time)

- Have a 1 minute conversation with Nouns board
  - Discuss what your plans are the weekend/summer
  - Discuss what you’ve learned or want to learn today
  - Discuss what you did last night

- After 1 minute switch roles so both can experience being the AAC User

- After 1 more minute switch to the Core board and continue your conversation (see above ?s)

Discuss what you could/could not say with those two communication boards
High Expectations are the key to everything

Sam Walton
Strategic Competencies

- Developing compensatory strategies for users to communicate effectively in all environments
- Aided Language Stimulation: Modeling
  - Talk
  - Point
  - Show
Aided language

- Identify vocabulary
- Point/say target
- Student responds
- Pause! Wait for student
Modeling Statistics

- How many words does a typically developing child from an average working class family hear per HOUR?
  - **1,251** (Hart & Risley, 1995)

- How many words does a typically developing child from an average working class family hear per YEAR?
  - **6,000,000!** (Hart & Risley, 1995)

- How many symbols does a child with a disability see other people use to communicate in one YEAR?
  - Often..... **Zero!** (Miranda, 2003)
Case Studies

**Timothy**
- 7 years old
- Compass on iPad
- Primary use of Topics and Quick Phrases
- 3x3 grid

**Kyle**
- 11 years old
- Unity on Accent 1000
- 84 sequenced
- Combining 2-4 words, single word independent messages
Strategic Competencies - Timothy

- Participation Plan
- A starting place
- Providing access to the Curriculum

Technology Resource Center of Marin
# Participation Plan

<table>
<thead>
<tr>
<th>Goal</th>
<th>Class, Activity or communication opportunity</th>
<th>Specify AAC targets (vocabulary, phrases, Communication functions)</th>
<th>Icon Sequence</th>
<th>Intervention Strategies</th>
<th>Communication Systems/Tools and Resources</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insert Goals to address</td>
<td>Input schedule</td>
<td>Gather information re: targets from team</td>
<td>Path to find vocabulary on device/system</td>
<td>Determine Appropriate prompts/cues</td>
<td>Select Unaided or Aided language systems to utilize</td>
<td>Document progress and outcomes</td>
</tr>
<tr>
<td>Label 10 actions with AAC Device</td>
<td>Work Time</td>
<td>Label Actions</td>
<td>Word lists + Actions</td>
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</tr>
<tr>
<td>Given verbal prompt, will communicate needs</td>
<td>Help Kidz Learn</td>
<td>Social Phrases &quot;Awesome&quot; &quot;Don't Like&quot;</td>
<td>Quickphrases + Greetings &amp; Social</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Read Aloud</td>
<td>Lunch Choice &quot;I want choice 1&quot; &quot;I want choice 2&quot;; I want more&quot; &quot;I want a drink.&quot;; &quot;all done&quot;</td>
<td>Topics + Cafeteria + General; Topics + Cafeteria + Getting Food; Core + All Done</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Given verbal prompt, will communicate needs</td>
<td>Bathroom</td>
<td>&quot;I need to use the bathroom&quot;</td>
<td>Quickphrases, Personal Needs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respond to Greetings</td>
<td>Walk</td>
<td>Greetings &quot;hi&quot; &quot;bye&quot;</td>
<td>Quickphrases, Greeting &amp; Social</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Given verbal prompt, will communicate needs</td>
<td>Recess</td>
<td>&quot;I want ball&quot; &quot;Do you want to play?&quot;</td>
<td>Topics + Games + Game Talk + Let's Play + Ball; Topics + Games + General + Do you want to play</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respond to Greetings</td>
<td>Gen Ed - Centers</td>
<td>Greetings &quot;hi&quot; &quot;bye&quot;; Social Phrases</td>
<td>Quickphrases, Greeting &amp; Social</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
Reflection

How could you use this with a student you are working with right now?
Using Core Words – Snack & Lunch Time Script

Below are words to model during snack or lunchtime. Provide small portions to increase number of opportunities for modeling and communication. Be sure to touch the pictures (bolded words) along with verbally stating the word/entire sentence. Aim for 200 communication opportunities across the school day.

You DON’T’ WANT THAT.        READY for MORE?
You WANT MORE.               It’s ALL GONE.
MORE                             YOU DID it.
MORE of THAT                   I will HELP.
You WANT MORE of THAT         LOOK, here’s some juice.
It’s GOOD                      LOOK, here’s a cookie.
It’s BAD                       You WANT something DIFFERENT.

Time to STOP.                 ALL DONE
YOU need HELP.               WHAT’s for lunch?
WANT THIS?                    WHAT do you WANT?
Are you ALL DONE?
Using Core Words – Art Script

Below are words to model during art. Be sure to touch the pictures (bolded words) along with verbally stating the word/entire sentence. Aim for 200 communication opportunities across the school day.

LET’S MAKE THAT.
LET’S MAKE ONE.
OPEN IT.
WHAT COLOR?
I LIKE THAT.
YOU DID IT!
Do you WANT SOME?
Do you WANT ALL?

I WANT DIFFERENT color.
WAIT YOUR TURN.
PUT ON the glue.
TAKE OFF the cap.
LOOK HERE.
YOU NEED HELP.
I WILL HELP.

DON’T EAT.
I WANT THAT.
IT is LITTLE.
MAKE IT BIG.
PUT HERE.
PUT THERE.
Using Core Words – Reading Books Script

Below are words to model while reading books. Be sure to touch the pictures (bolded words) along with verbally stating the word/entire sentence. Aim for 200 communication opportunities across the school day.

**DO you WANT to read?**
Time to **STOP** reading.
**READY** for **MORE**.
Try **MORE**.
**NO MORE**.
**WANT** a **DIFFERENT** book.
**WHAT** do you **WANT** to **DO**?
**MY** turn.

**I LIKE THIS.**
**WHAT** do you **WANT**?
**YOU DO** it.
I will **HELP**.
**DON’T WANT** to **STOP**.
That’s too **BAD**.
**LOOK** over here.
**YOUR** turn.

**LOOK** at **THAT**.
Read it **MORE**.
I will **DO** it.
**HELP ME** turn the page.
**DON’T DO THAT**.
**THIS** is a **GOOD** book.
**ALL DONE**
Using Core Words – Recess Script

Below are words to model while out at recess. Be sure to touch the pictures (bolded words) along with verbally stating the word/entire sentence. Aim for 200 communication opportunities across the school day.

**WANT** to play?
Let’s **GO**.
**READY** for **MORE**.
Try **MORE**.
**NO MORE**.
**WANT** something **DIFFERENT**?
**DO** you **WANT** to swing?
**MY** turn.
**DO** it **MORE**.

**I LIKE THIS**.
**WHAT** do you **WANT**?
**YOU DO** it.
I will **HELP**.
**DON’T WANT** to **STOP**.
That’s too **BAD**.
**YOU STOPPED**.
**YOUR** turn.
**LOOK** over here.

**LOOK** at **THAT**.
Ready, set, **GO**!
I will **DO** it.
**HELP ME** up the ladder.
**WHAT**’s next?
Time to **STOP**.
**ALL DONE**
**WANT** to **GO**.
I’ll **WATCH YOU**.
Using those Scripts – Get Talking!

- Partner with someone
- Using those communication boards, role play teacher-student scenarios
- Taking your art script, model vocabulary you want your student to imitate
Strategic Competencies - Kyle

- Cueing strategies used that worked
- Aided language approach
- Targeted vocabulary
- Communication opportunities
Matching Communication to Curriculum

- How does the communication partner support the use of Core words?
  - Core words are already known by AAC User
  - Core words are identified by team
  - Participation developed to identify integration of AAC system across setting

- Compare Lesson Plan to vocabulary targets?
Class Lesson: Solar System – Identifying Characteristics of Planets

- Planets that are “BIG”
- Planets that are “wet”
- More & stop, near & far, dark & light, hot & cold
- “turn”/rotate, “go”
- Prepositions: around, above, below, next to,
- Weather: moons, sun, storm
- Colors of planets
Social Competencies

- Pragmatic social skills: Knowledge & judgement in social interactions
- Balancing AAC system while communicating
- Alert communication partner before messaging
  • Communicating a VARIETY of intentions
  • AAC Users can initiate communication but have difficulty maintaining conversational dialogue
There’s more to life than cookies

**Social Closeness:**
- Social interactions establish and develop a personal relationship
- Social interactions do more than express wants and needs
- Social interactions begin in infancy
- Developing social etiquette
- Often neglected in AAC training
## Purpose of Communication

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Meaning</th>
<th>Steps in reaching goal</th>
<th>Vocabulary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Express wants and needs</td>
<td>To gain desired object, requesting AND/OR protesting/negating against object</td>
<td>gaining attention &amp; initiating interaction; indicating desired object or action</td>
<td>• Want, more, go, help • All done, stop, no, not, different</td>
</tr>
<tr>
<td>Develop social closeness</td>
<td>To establish &amp; develop personal relationships</td>
<td>maintain the interaction and maintain engagement of both participants, both are equally engaged</td>
<td>• social routines (tickle, peek-a-boo) story reading, turn-taking in games, activities</td>
</tr>
<tr>
<td>Exchanging Information</td>
<td>To give or receive information on shared topic</td>
<td>Establishing shared focus and developing a topic</td>
<td>• Labeling objects, asking or answering questions, commenting on events, objects, people</td>
</tr>
<tr>
<td>Fulfilling social etiquette routines</td>
<td>To conform to social conventions of politeness</td>
<td>Completing designated routines politely</td>
<td>• Please/thank you • Hello/how are you/I’m fine • Identifying yourself</td>
</tr>
</tbody>
</table>
Reflection

How do you teach your staff what you just learned today?
Successful Steps to Instructing Communication Partners

1. Pretest and commitment to instructional program
2. Strategy description
3. Strategy description, plus video review activities
4. Verbal practice of strategy steps
5. Controlled practice and feedback, including role playing activities
6. Advanced practice & feedback, including coached practice w/ student using AAC
7. Post-term & commitment to long-term strategy use, including video review activities
8. Generalization of targeted strategy use, including formation of plans for future strategy use.
UDL and AAC

- Our overall goal is to develop strategic, goal-directed learners
- By using AAC as a multiple means tool for expression we are providing options for expression
  - To answer & ask questions in class
  - To read aloud in class
  - Become self-advocates
  - An active participant in their learning
  - To make and maintain friends
  - And MORE!
Ten Wishes from a Student who uses AAC

I wish my friends would joke with me.

I wish my teacher would learn how to work my communication aid.

I wish adults would stop shouting at me like I can’t hear.

I wish my therapist wouldn’t have a heart attack when my machine doesn’t work.

I wish my people would remember that I don’t always spell very well.

I wish my friends would have more patience with me.

I wish my teacher would call on me for share day.

I wish everyone would just give me enough time to say what I’m thinking.

I wish people wouldn’t hit my machine when it doesn’t work. That’s my mouth they are hitting!

I wish I could walk and talk like my sister and brother.
Research


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