“Core for All”

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Christine Kramlich, M. ED
Assistive Technology Consultant
Prentke Romich Company
770-871-8434
Cyk.cons@prentrom.com

Beth Saunders, MS CCC/SLP/ATP
Assistive Technology Consultant
Saltillo Corporation
954-649-1234
beth@saltilloconsultant.com
Strengthening your Core: 
Building vocabulary muscles for stability and independence
Beth’s Disclosure

- This presentation will focus exclusively on using core vocabulary to communicate.
- I am a contract employee of the Saltillo Corporation.
- MS CCC/SLP/ATP
- I am an assistive technology consultant.
Christine’s Disclosure

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- I am a contract employee of the Prentke Romich Company
- M. ED
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Learner Outcomes

- Understand the importance of using core vocabulary
- Identify major classes of core vocabulary
- Demonstrate use of core vocabulary in at least 3 different activities
- Explain how to foster language growth through basic core vocabulary
Agenda

- Introduction
- Vocabulary Choice
- Vocabulary Organization
- Teaching Core Vocabulary
- Wrap-Up
Goal = Communication and Language

- Communicate anytime
- Communicate anything
- Communicate with anyone
It’s all about the vocabulary!!!!!!
About the Handout

- Goals for users of AAC devices
- Reasons AAC users don’t use their devices
- Communication partners’ behaviors that do not facilitate communication by AAC users
Everyone needs a good analogy...

- Strengthening the core stability muscles
- There are main 3 stages to attaining a strong core.
  - **Stage 1:** Independent core contraction
  - **Stage 2:** Integrated focused core exercises
  - **Stage 3:** Incorporate into functional activities
If the core of the apple is rotten, it doesn’t matter how red and juicy the apple looks on the outside.
| 1. again                      | 11. like                    | 21. do  |
| 2. all done *                 | 12. mine *                  | 22. down |
| 3. all gone                   | 13. more *                  | 23. get  |
| 4. away                      | 14. not/don’t               | 24. in   |
| 5. big                       | 15. stop *                  | 25. little|
| 6. go                        | 16. that *                  | 26. off  |
| 7. help *                     | 17. want *                  | 27. on   |
| 8. here                      | 18. what *                  | 28. put  |
| 9. I                         | 19. you                     | 29. some |
| 10. it                       | 20. my                      | 30. out  |
Research and implementation results have shown that core vocabulary should be an integral part of teaching communication skills.

http://praacticalaac.org/strategy/teaching-core-vocabulary/
<table>
<thead>
<tr>
<th>Words</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>9.5</td>
</tr>
<tr>
<td>No</td>
<td>8.5</td>
</tr>
<tr>
<td>Yes/yea</td>
<td>7.6</td>
</tr>
<tr>
<td>my</td>
<td>5.8</td>
</tr>
<tr>
<td>the</td>
<td>5.2</td>
</tr>
<tr>
<td>want</td>
<td>5.0</td>
</tr>
<tr>
<td>is</td>
<td>4.9</td>
</tr>
<tr>
<td>it</td>
<td>4.9</td>
</tr>
<tr>
<td>that</td>
<td>4.9</td>
</tr>
<tr>
<td>a</td>
<td>4.6</td>
</tr>
<tr>
<td>go</td>
<td>4.4</td>
</tr>
<tr>
<td>mine</td>
<td>3.8</td>
</tr>
<tr>
<td>you</td>
<td>3.2</td>
</tr>
<tr>
<td>what</td>
<td>3.1</td>
</tr>
<tr>
<td>on</td>
<td>2.8</td>
</tr>
<tr>
<td>in</td>
<td>2.7</td>
</tr>
<tr>
<td>here</td>
<td>2.7</td>
</tr>
<tr>
<td>more</td>
<td>2.6</td>
</tr>
<tr>
<td>out</td>
<td>2.4</td>
</tr>
<tr>
<td>off</td>
<td>2.3</td>
</tr>
<tr>
<td>some</td>
<td>2.3</td>
</tr>
<tr>
<td>help</td>
<td>2.1</td>
</tr>
<tr>
<td>all done/finished</td>
<td>1.0</td>
</tr>
</tbody>
</table>

26 core words shown at left comprise 96.3 percent of the total words used by toddlers in this study.

Banajee et al., 2003
Generative Language is Based on *Core* Words

- 85 - 90% of what we say throughout the day comes from a small bank of 400-500 core words.

- 20% of what we say comes from thousands of fringe words.

(Baker & Hill, 2000)
Types of Vocabulary – Core & Fringe

Core vocabulary - composed of high frequency words that are very versatile

✓ Developmentally, environmentally and pragmatically appropriate.
  (gender, age, topic, settings, disabilities)

Fringe vocabulary - composed of words that occur infrequently and lack versatility

✓ Primarily nouns and custom vocabulary.
All Words are NOT Created Equal

hibernate

up

is

have

Paul

about

Mars

da

stop

want

am

cylinder

market

down
Core vs. Fringe

- hibernate
- up
- Revere
- do
- help
- cylinder
- is
- about
- Mars
- stop
- have
- who
- Paul
- a
- want
- am
- market
- down

Paul Revere

Do Mars a help want

Cylinder stop have who

Up is about Mars is who

Am market down help a

 Hibernate about Mars a

Am market down help a

Do Mars a help want

Core vs. Fringe
## Core vs Fringe

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Core Vocabulary</th>
<th>Fringe Vocabulary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of words</td>
<td>Small number of words</td>
<td>Very large number of words</td>
</tr>
<tr>
<td>Frequency of use</td>
<td>High frequency</td>
<td>Low frequency</td>
</tr>
<tr>
<td>Applicability across environments</td>
<td>Applicable to all environments</td>
<td>Applicable to limited environments</td>
</tr>
<tr>
<td>Applicability across topics</td>
<td>Applicable to all topics</td>
<td>Applicable to limited topics</td>
</tr>
<tr>
<td>Types of words</td>
<td>Includes a variety of parts of speech</td>
<td>Includes mostly proper names and other nouns</td>
</tr>
<tr>
<td>Usefulness in a single message</td>
<td>Approximately 80% of the words in a sample of 100 total words will be core, but many of the core words will be used repeatedly, so the number of different words is small.</td>
<td>Approximately 20% of the words in a sample of 100 total words will be fringe. The number of different words will be large, as fringe words are repeated with much lower frequency than core words.</td>
</tr>
</tbody>
</table>

**Language Lab**
Language Lab

Language for a Lifetime.

http://www.aaclanguagelab.com/
Famous Quotes without the Fringe

• Here’s looking at you _______
• We’re not in ________ anymore.
• _____ is like a _____ of ____________. You never know what you’re going to get.
• There’s no crying in ____________.
• Show me the ________.
Modified list of core vocabulary – AAC  
Gail VanTatenhove, 2005

1st 8 words:

<table>
<thead>
<tr>
<th>All done</th>
<th>Help</th>
<th>Want</th>
<th>Mine</th>
</tr>
</thead>
<tbody>
<tr>
<td>More</td>
<td>Stop</td>
<td>That</td>
<td>what</td>
</tr>
</tbody>
</table>

Next 7 (for top 15)

<table>
<thead>
<tr>
<th>Away</th>
<th>Go</th>
<th>Here</th>
<th>I</th>
</tr>
</thead>
<tbody>
<tr>
<td>It</td>
<td>Like</td>
<td>You</td>
<td></td>
</tr>
</tbody>
</table>

Common Words

http://www.aacandautism.com/common-words
Functional Communication

Language is learned through broad experiences that provide multiple opportunities for repetition of concepts, use of vocabulary and conversations that are motivating. Students need to learn the power of communication.
## Communication Functions

- Initiate/call attention
- Greet
- Accept
- Reject
- Request
- Name
- Acknowledge
- Answer
- Comment
- Express feelings
- Assert independence
- Ask questions
- Share information
- Relate events
- Talk about past/future
- Negotiate/bargain
- State opinions
- Make up stories
- Express manners
- Show consideration
# Moving beyond naming objects and making choices

<table>
<thead>
<tr>
<th>Communication Skills</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gains attention appropriately.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uses social greetings.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introduces self when appropriate.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asks questions to gain information.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initiates topics appropriately.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicates personal states (emotions, sick, pain).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uses polite social forms.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seeks help when needed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides communication partner with instructions when needed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uses communication system without being prompted.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restates and repairs communication attempts.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expands upon messages to add details.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alerts communication partner that more time is needed to formulate a message.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gives (appropriate) feedback when message is not understood.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negotiates and bargains.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gives feedback to confirm understanding.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remains on topic (communication turn taking).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicates when message is completed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Makes up stories.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Overcoming Common Barriers

- Physical environment
- Social
- Opportunities
- Knowledge
- Attitude
Reasons AAC Users don’t use their devices/systems

- AAC displays that consist primarily of nouns and descriptors are very limiting.

- These kinds of communication displays restricted users to requesting and labeling.

- Providing only pre-stored messages limits the user’s ability to communicate anything novel. It is not flexible enough to meet most communication needs.

- Without core vocabulary, we were imposing a ceiling on language development.
More reasons ......

- Users don’t have anything to say because the device doesn’t have the vocabulary needed to say what they want it to say. (Vocabulary selection)

- Devices contain messages that are not important.

- Users don’t understand what’s expected.

- Users get what they want/need without the device.
even more reasons ......

- Users don’t want to appear different.
- People interpret for them.
- Familiar people can understand their speech (or anticipate their needs).
- The device has been used as a tool for academic learning, not communication. (motivation)
and more reasons ..... 

- Skepticism and low expectation.
- Intense support has not been provided.
- Active learning experiences have not been provided.
Implementing the Common Core State Standards

Mission Statement
The Common Core State Standards provide a

Common Standards
Building on the excellent foundation of

Discover the Common Standards
Why don’t SLPs focus on core?

- Nouns are “picture producers”.
- Most standardized tests focus on nouns — easier to test, both receptively and expressively.
- Need to take a look at testing-open ended questions. More important to find out understanding of topic than able to recite names.
- We rarely need to focus on core vocabulary with VERBAL kiddos – this is often done naturally by parents.
Common Core Standards

- Core Curriculum Standards emphasize the ability to answer open-ended questions.
- Common Core Curriculum Standards require students to describe, explain, compare/contrast, ask/answer, determine the meaning, make connections and analyze, etc.
- The Common Core Standard does not specify being able to say particular words.
- It demands students be able to “tell about and talk about” curriculum content meaningfully.
Where Are We?

Introduction
Vocabulary Choice
➢ Vocabulary Organization
Teaching Core Vocabulary
Wrap-Up
Vocabulary Representation

• One system does not work for all
• Core are non picture producing
• Ball vs. play

• Truck vs. That
Vocabulary Organization: Saltillo

[Image of a digital vocabulary organization tool]
Vocabulary Organization: PRC
## Which System for Which Learner

<table>
<thead>
<tr>
<th>PRC</th>
<th>Saltillo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor Plan</td>
<td>Predictive</td>
</tr>
<tr>
<td>Fast processing</td>
<td>Deliberate processing</td>
</tr>
<tr>
<td>Low or high abstract thinking</td>
<td>Moderate abstract thinking</td>
</tr>
<tr>
<td>Past experiences mattered</td>
<td>Past experiences matter</td>
</tr>
</tbody>
</table>
Techniques for Learning

- Wind up dog
- Top
- Cars
- Bubbles
- Ipad
How do I teach core vocabulary?

Back to Basics
- Strategies for Language Development

Focus on Language
- Setting Language Goals
- Brown’s stages – Language Lab

The Medium Matters
- Appealing activities
Teaching Core: Back to Basics

What do you do with your verbal students who are delayed?

- Model
- Repeat what they say + 1
- Follow child’s lead
- Sabotage
- Wait
- Cue
- Set the scene for success (errorless learning)
- Write scripts
- Use peer models
- Effective questions: Open-ended - not YES/ NO
Teaching Core: Pick your words!

- Use the core word lists as a guide
- Acknowledge that kids are different
- Start with a list of 5-10 words, and keep growing!

2014-01-01 21.30.30.mov
Typical Language Development

**Stage 1**: MLU of 1.75; ages 15-27 months. Ex: go, that, help, more, stop; 85 single words.

**Stage 2**: MLU of 2.25; ages 21-30 months. Ex: want more, need help, all done, stop, don’t; 75 – 200+ words.

**Stage 3**: Questions and negatives develop. MLU of 2.75; ages 23-37 months. Ex: Mom coming in, Dad helping, Man riding, Look it going; 200 – 1000+ words.
Typical Language Development continued

**Stage 4**: Imbedding sentences in sentences. MLU: 3.50. Ages 26-44 months. Ex: I fell down, where is it?; Up to 2000 words.

**Stage 5**: Combining simple sentences. MLU: 4.00. Ages 27-48 months. Ex: I did this and I did that.
Typical Language Development continued

Stage 6: uses all parts of speech; correct word order; MLU: 4.5+. Ex: Where’s a pencil I can use?, I wanted you to turn it. 5000+ words
How do you know where nonverbal kid is?

Receptive understanding of spoken vocabulary

- Test of Auditory Language (TACL)
- Test of Nonverbal Intelligence (TONI)
- Wechsler Nonverbal Scale of Ability
Aided Language Stimulation

**Definition:** (AAC Institute)
- A communication strategy where a communication partner teaches symbol meaning & models language by combining his/her own verbal input with selections of vocabulary on an AAC system.

**Bicycle Analogy**
- Can’t just “tell” someone how to ride a bike.
- They must visualize/”see” a competent cyclist.
Teaching core: Appealing activities

- Books
- Games
- Role Play
- Toys
- Language Cards
- Computer/Ipad
- Classroom routines
  - Line leader
  - Calendar Time
Activities: Books

- Age appropriate

- Core can be used to:
  - Request action (*turn page; read*)
  - Make comment (*cool, I like, yuk*)
  - Say repeated line (*what do you see?*)
  - Predict (*he happy, she not go*)
  - Describe (*it red/ pretty/ big*)
Activities: Books

- Create original books
- Use magazines
- Adapt and re-write for older students
  - Sports
  - Comic strips
- Use photographs
  - Home
  - Field trip
  - Classroom
Find age appropriate materials of interest:
They worked hard all year. They were ready. They played a good game. Go Ravens!
They won the big game!
Activities: Games

Use games for personal and social skills:

- Turn Taking \((my \ turn/ \ you \ go)\)
- Patience – \(waiting \ your \ turn\)
- Honesty – \(no \ cheating\)
- Persistence – \(finishing \ the \ game\)
- Cooperation
- Team building
- Sharing
- Making friends
Activities: Games

Use core to build expressive language skills

- Vocabulary development (e.g., colors, sizes, pronouns)
- Commenting (*his turn; he sad; I get one!*)
- Requesting (*Do you have red?; You have fish?*)
- Answering questions (*I do!; I don’t*)
- Increasing MLU (*want/ want that/ I want that/ I want that please*)
Activities: Role Play

• Store (what do you want; do you have; where is; I need that/this; I am ready! Put it in; put it on). **HINT:** have photos of specific items instead of programmed in AAC device.

• Restaurant (want to eat; want to drink; what you want; I want; hello!; do you have; I like that; I don’t like it; thank you). **HINT:** use photo menus.
Activities: Toys

Any off-the-shelf toy; use core language instead of specific vocabulary

• Mr. Potato Head: want nose; need hat
• Blocks: put on; put two on; I do it; you do it; make it go down
• Farm: make it eat; make it sleep; it go in; put on
Activities: SLP’s bag of tricks

Use the materials you already have

• Pronoun cards
• Descriptor cards/ sequencing cards
• Barrier games
• Question decks
• Pragmatic decks
• Listening Skills
• Verb cards
Activities: Computer
<table>
<thead>
<tr>
<th>Request Object</th>
<th>Request Action</th>
<th>Getting attention</th>
</tr>
</thead>
<tbody>
<tr>
<td>I want</td>
<td>Help</td>
<td>Want more</td>
</tr>
<tr>
<td>Get it</td>
<td>Go away</td>
<td>Put on</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social remark</td>
<td>Sharing</td>
<td>Protest</td>
</tr>
<tr>
<td>Like you</td>
<td>Information</td>
<td>Don’t get off</td>
</tr>
<tr>
<td>Don’t like</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Greeting</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Little</td>
<td></td>
</tr>
<tr>
<td></td>
<td>That on</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I here</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ask for</td>
<td></td>
</tr>
<tr>
<td></td>
<td>information</td>
<td></td>
</tr>
<tr>
<td></td>
<td>What in</td>
<td></td>
</tr>
<tr>
<td></td>
<td>That mine</td>
<td></td>
</tr>
</tbody>
</table>
THE LANGUAGE STEALERS

We want to read!
We want to write!
We want to speak!
We have the right!
Resources

AAC Institute –
  ➢ http://www.aacinstitute.org/

Common Core State Standards –
  ➢ http://www.corestandards.org/

AAC Language Lab (PRC) –
  ➢ http://www.aaclanguagemlab.com/

Center for AAC and Autism –
  ➢ http://www.aacandautism.com/common-words
Resources

PrAACtical AAC – Supports for language learning

- [http://praacticalaac.org/?s=teaching+core](http://praacticalaac.org/?s=teaching+core)

Prentke Romich Company

- [www.prentrom.com](http://www.prentrom.com)

Saltillo Corporation –

- [http://saltillo.com/training/tutorials/novachat](http://saltillo.com/training/tutorials/novachat)
- [www.saltillo.com](http://www.saltillo.com)