



# What is Communication?

## ● From ASHA:

- > 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. Communication may be intentional or unintentional, may involve conventional or unconventional signals, may take linguistic or non linguistic forms, and may occur through spoken or other modes.

# What is Communication?

- From Wikipedia:

- > Communication is the activity of conveying information.

# MT Goals related to Communication:

- Choice making
- Turn taking
- Joint attention
- Impulse control
- Increasing length of utterances
- Increasing vocabulary
- And many others...

# What is AAC?

- AAC is short for Augmentative and Alternative Communication.
- According to an ASHA position paper published in 1991, AAC is: An integrated group of components, including the symbols, aids, strategies, and techniques used by individuals to enhance communication.
- This means: Speech, voice and/or vocalizations, gestures, signs, pictures, books, high-tech systems.



PROBLEM!!!

# Consider this...

- The average 18 month old child has been exposed to 4,380 hours of oral language at a rate of 8 hours/day from birth. A child who has a communication system and receives speech/language therapy two times per week for 20-30 minutes sessions will reach this same amount of language exposure in 84 years!

## And this...

- 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 speech therapy is given to a child twice a week, 20-30 minutes each time, it will take the alternate symbol user 701 years to have the same commensurate experience with his symbols.

# A couple more things...

- A natural speaker who does not have a disability has a conversational speaking rate between 150-250 words per minute (Goldman-Eisler, 1986).
- According to research by Foulds (1980, 1987), an AAC user has conversational rates of less than 15 words per minute.
- In many cases, the rates of AAC users were often two to eight words per minute (alternative access methods, slow processing, etc.).

# Motivation

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Physical effort + Cognitive effort + Time

What can we do to help our  
AAC users succeed?

# Eight basic functions of communication

- ◉ Seeking attention
- ◉ Greeting
- ◉ Requesting
- ◉ Protesting
- ◉ Choice making
- ◉ Commenting
- ◉ Recurrence (wanting more of something)
- ◉ Rejection (rejecting an item or wanting to cease an activity).

# Normalization

- <http://www.youtube.com/watch?v=d7WgRVEPW0g&feature=related>

# Multi-modal Communication

- Using more than one type of communication method to convey a message
  - > Speech
  - > Gestures
  - > Body language
  - > Vocalizations
  - > Facial expressions
  - > Eye gaze
  - > Communication boards or books
  - > Verbal approximations

# Multi-modal Communication

- Humans naturally communicate through multi-modal means
- It's not always about the AAC device!
- We need to allow/encourage our students be multi-modal communicators; they should use the most efficient and appropriate means of conveying their message
- We need to demonstrate appropriate methods, especially with our clients with autism

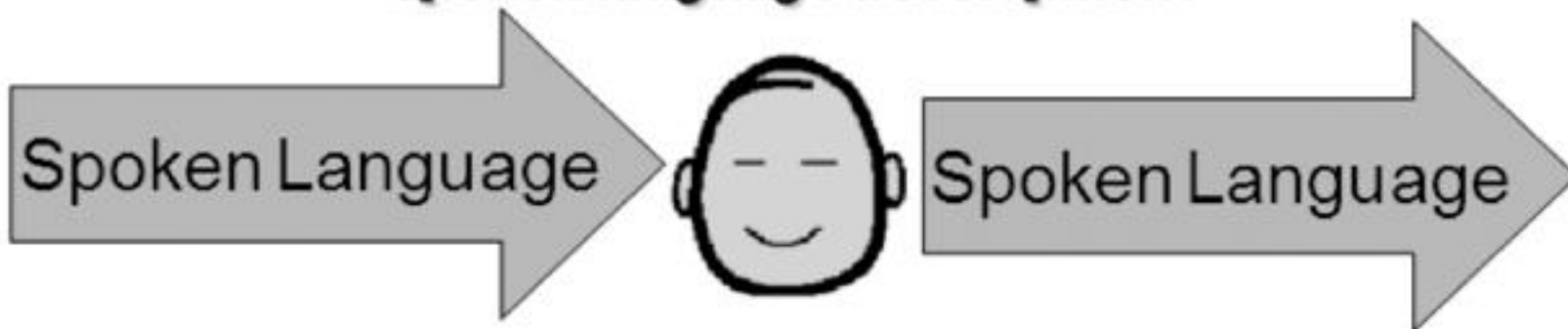
# Aided language stimulation

- A language stimulation approach in which the facilitator points out picture symbols on the child's communication display in conjunction with all ongoing language stimulation. Through the modeling process, the concept of using the pictorial symbols interactively is demonstrated for the individual.

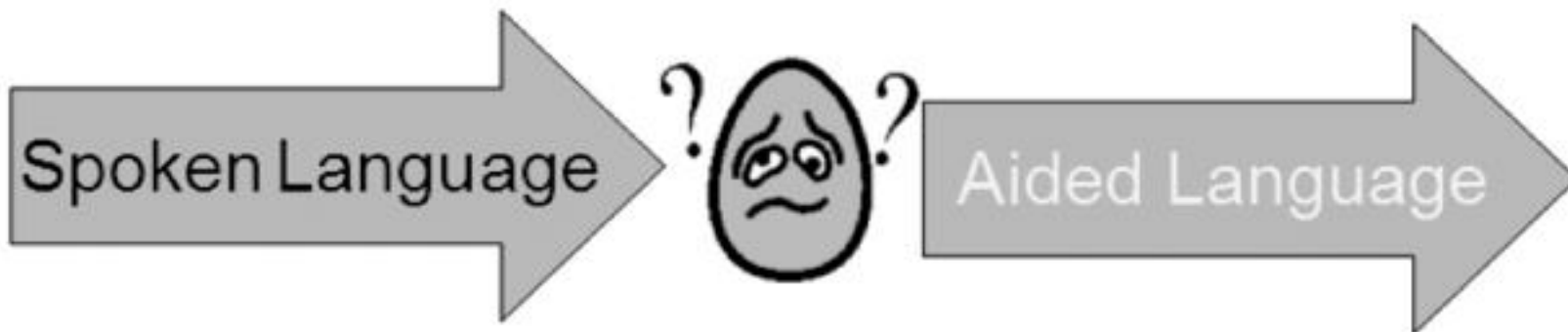
**Input**

**Output**

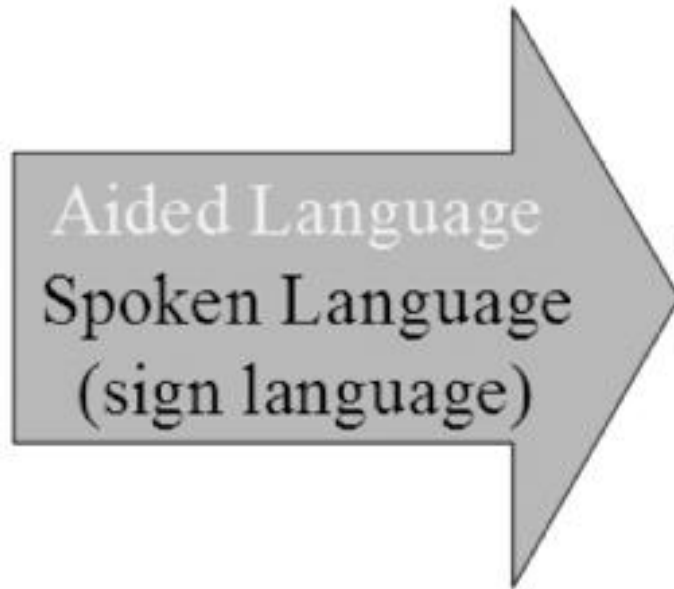
**Spoken language development**



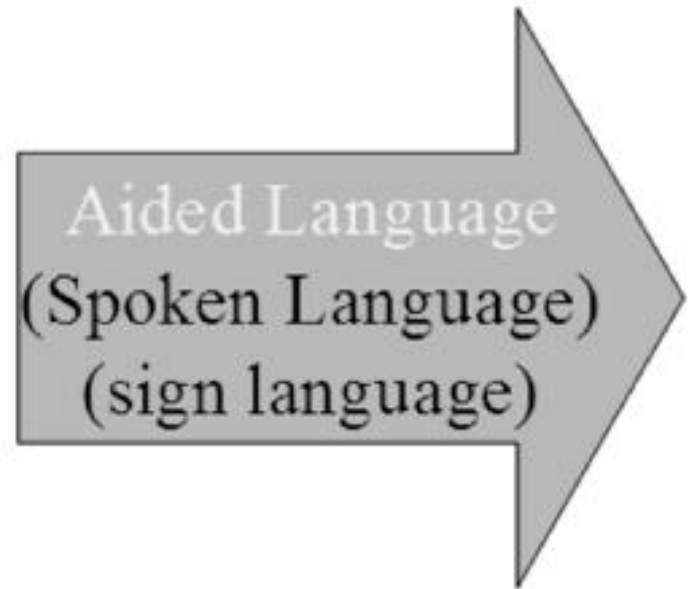
**Child Learning Aided Symbols**



# Input



# Output



# General guidelines for ALS

- Use lots of repetition in an activity.
- Whenever the child indicates something nonverbally, acknowledge their communicative intent and then model the symbol/word.
- Whenever the child indicates something with a single word/symbol, expand the message into an equivalent two or more word/symbol combination.

# Sabotage

- Creating “road blocks” to increase opportunities for communication
  - > Give an incorrect item
  - > Omit a step
  - > Perform an incomplete, incorrect or mischievous action
  - > “Creative stupidity” – acting like you can’t understand something


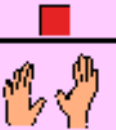
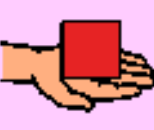




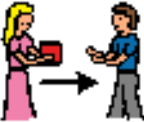


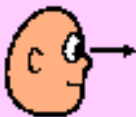













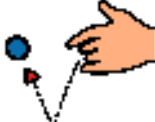



# Sabotage

- How does this play out in the music therapy session?
  - > Often, very student specific...
  - > Give a mallet, but not the drum
  - > Start a song without guitar accompaniment, or too slow/too fast!
  - > Change the order of your activities! Start with the goodbye song!
  - > If students don't respond, model an appropriate response. (Uh Oh!!)
- Caution: Be careful when using this method – we don't want to cause undue frustration!

# Designing Communication Boards

- ◉ Modified Fitzgerald key – Left to right arrangement of words, in grammatically correct order
- ◉ Goossens' Color Coding
  - > Nouns – Yellow
  - > Prepositions – Green
  - > Descriptions – Blue
  - > Miscellaneous – Orange
  - > Verbs – Pink

# Sample Communication Board

|  |  |  |   |   |   |  |   |   |
|--|--|--|---|---|---|--|---|---|
| <p>I</p>      | <p>want</p>   | <p>have</p>   | <p>in</p>          | <p>out</p>  | <p>more</p>      | <p>who</p>      | <p>give</p>    | <p>ball</p>  |
| <p>like</p>   | <p>see</p>    | <p>give</p>   | <p>on</p>          | <p>off</p>  | <p>finished</p>  | <p>roll</p>     | <p>throw</p>   | <p>kick</p>  |
| <p>go</p>     | <p>put</p>   | <p>play</p>  | <p>different</p>  | <p>big</p>  | <p>what</p>     | <p>bounce</p>  | <p>catch</p>  |   |
| <p>yes</p>  | <p>no</p>  |  |   |   |   |  |   |   |

# Core Vocabulary
















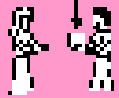







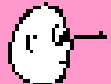
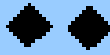



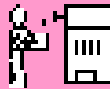















- Small set of words (a few hundred) that are used for approximately 80%-85% of communication
- Core words are used frequently and can be used in various environments/contexts
- Most words in core vocabulary are less than six letters in length!
- Includes pronouns, verbs, adjectives, adverbs, prepositions, conjunctions, interjections, and limited nouns
- Most core words are not picture-producers

# Core Vocabulary Lists

- <http://www.vantatenhove.com/files/NLD AAC.pdf>
  - > Has a list of first 10, 20, 30, 50 and 100 words
- <http://aac.unl.edu/vocabulary.html>
  - > Lists are broken down by age group



# Core Board – 35 words

|   |  |   |   |   |  |  |   |   |   |  |  |
|---|--|---|---|---|--|--|---|---|---|--|--|
| I<br>        | my/mine<br> | want<br>     | do/make<br>    | all done<br> | all gone<br>  | again<br>   |   |   |   |  |  |
| you<br>      | family<br>  | drink<br>    | eat<br>        | big<br>      | different<br> | do/make<br> |   |   |   |  |  |
| it<br>       | what<br>    | get<br>      | Go!<br>        | here<br>     | little<br>    | more<br>    |   |   |   |  |  |
| friends<br> | help<br>   | like<br>    | look, see<br> | same<br>    | on<br>       | off<br>    |   |   |   |  |  |
| not<br>    | put<br>   | read<br>   | stop<br>     | down<br>   | in<br>      | out<br>   |   |   |   |  |  |
| colors<br> | red<br>   | orange<br> | yellow<br>   | green<br>    | black<br>     | blue<br>   | purple<br> | pink<br> | grey<br> | brown<br> | white<br> |

# Fringe Vocabulary

- Large set of words of words (thousands) that consist of mainly nouns and proper nouns that are used for less than 20% of conversation
- Applicable to limited topics and environments (i.e. volcano, hurricane, photosynthesis, bubbles, juice, names of family, teachers, etc.)
- Often specific to person/setting

# Topic Board/Fringe Vocab

|  |  |   |   |  |   |   |
|--|--|---|---|--|---|---|
|  | <p>lunch</p>        | <p>sandwich</p>              | <p>sandwich</p>         | <p>torpedo sandwich</p>       | <p>hamburger</p>       | <p>cheeseburger</p>    |
|  | <p>chicken leg</p>  | <p>chicken nuggets</p>       | <p>fish</p>             | <p>macaroni &amp; cheese</p>  | <p>salad dressing</p>  | <p>salad</p>           |
|  | <p>pizza</p>        | <p>pepperoni</p>             | <p>cheese</p>           | <p>potato patty</p>           | <p>onion rings</p>     | <p>French fries</p>    |
|  | <p>ham</p>         | <p>roast beef sandwich</p>  | <p>grilled cheese</p>  | <p>turkey</p>                | <p>tuna</p>           | <p>peanut butter</p>  |
| <p>lunch</p>  | <p>butter</p>     | <p>jelly, jam</p>          | <p>crackers</p>       | <p>toast</p>                | <p>bun, roll</p>     | <p>bread</p>         |
|  | <p>ketchup</p>    | <p>mustard</p>             | <p>mayonnaise</p>     | <p>salt</p>                 | <p>pepper</p>        | <p>pickles</p>       |

# Example Core Sentences

- “I want that.”
- “She likes it.”
- “Put it here.”
- “It goes fast!”
- “I feel sick.”
- “Help!”
- “I don’t know.”
- “I love you.”
- “Uh-oh!”
- “Come over here.”
- “Up!!”
- “I’m all done.”
- “Let me do it!”
- “I want to go with you.”
- “No!!!”
- Other

**How can we, as music therapists,  
increase our use of core  
vocabulary as we lead groups?**

How can we structure our activities and AAC supports to DECREASE reliance on fringe vocab and INCREASE use of core vocab?

# Teaching Models

- Referential teaching uses context-specific vocabulary
  - > “Who was the first president of the US?” -- George Washington
  - > Answers require fringe vocabulary, learning new vocabulary
- Descriptive teaching asks questions that students can answer using words they already know and have in their AAC systems
  - > “What do you know about George Washington?” – ran country first, didn’t tell a lie
- [http://www.youtube.com/watch?v=Vib2\\_BDCXc](http://www.youtube.com/watch?v=Vib2_BDCXc)

# Instrument activity

## Core Vocabulary:

- Play
- Loud/Soft
- Fast/Slow
- Quiet
- Put it in
- Take it out
- More
- Finished/All Done
- Play with both hands
- Play with one hand
- First this and then that
- Stop
- Go
- Up/Down

**VERSUS**

## Fringe Vocabulary:

- Maraca
- Drum
- Mallet
- Jingle Bells
- Rhythm Sticks
- Tambourine
- Music Genres
- Rhythm

# Singing familiar songs

## Core Vocabulary:

- Choose by description (fast/slow, funny/sad)
- Direct how to sing the song (fast/slow, high/low, etc.)
- Reinforce core words in the songs

**VERSUS**

## Fringe Vocabulary:

- Song names
- What type of song?
- Song choice board

# Lyric Writing Activities

## Core Vocabulary:

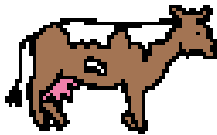

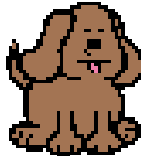

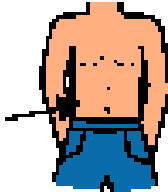
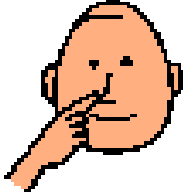


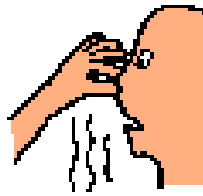

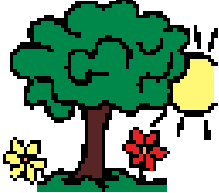
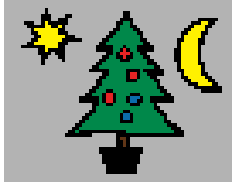
- Mad-lib style lyric writing
- Majority of “blanks” require core words

**VERSUS**

## Fringe Vocabulary:

- Fill-in-the blank where all words are nouns

# Rudolph activity

|   |  |  |
|---|--|--|
| <p>cow</p>           | <p>reindeer</p>      | <p>dog</p>              |
| <p>foot</p>          | <p>stomach</p>       | <p>nose</p>             |
| <p>grumbly</p>      | <p>glows</p>        | <p>smells</p>          |
| <p>turkey day</p>  | <p>summer day</p>  | <p>Christmas Eve</p>  |

# Songs with Core Vocabulary

- Gail Van Tatenhove encourages using music to reinforce all core vocabulary (wahoo!!)
- Song lyrics of popular songs have positives and challenges

## **Positives:**

- Everything we already know!
- Motivating
- Familiar
- Repetitive nature allows reinforcing a concept

## **Challenges:**

- Lyrics don't follow typical grammatical constructs
- Excessive extended/fringe vocabulary
- Appropriateness of topics

# Songs with Core Vocab

## **Beatles**

Can't Buy Me Love  
Love Me Do  
I Saw Her Standing There  
Eight Days a Week  
All You Need is Love  
All My Loving  
She Loves You  
I Want to Hold Your Hand  
I Feel Fine  
Don't Let Me Down

## **Elvis Presley**

Have I Told You Lately  
that I Love You?

## **Bob Marley**

Don't Worry About a  
Thing (chorus only)

## **Miscellaneous**

If You're Happy and You  
Know it

# Song Analysis

- ◎ Vocabulary Analysis
  - > Core Vocab by parts of speech
  - > Fringe Vocab by parts of speech
- ◎ Language Structure Review
  - > Questions
  - > Negations (can't, won't, don't)
- ◎ Choose Targeted Words

# Can't Buy me Love

## ○ Core Vocabulary:

- > Pronouns: me, you, my, it
- > Pronoun Phrases: can't, I'll, you feel\*, I don't, I may not, you don't need, you want
- > Indefinite Pronouns: anything, everybody
- > Verbs: buy, love, give, makes, get/got, care, say, have, tells, be, satisfied
- > Nouns: friend, money, lot, things
- > Adverbs: alright, too, much, to, so, just
- > Determiners: all, that
- > Adjectives: kind
- > Conjunctions: if, but, and, because
- > Prepositions: for, of
- > Question Words: what
- > Articles: a, the

## ○ Extended Vocabulary:

- > Nouns: diamond, ring

# Can't Buy me Love

Can't buy me love, love. Can't buy me love.  
I'll buy you a diamond ring my friend if it makes you feel all right.  
I'll get you anything my friend if it makes you feel all right.  
'Cause I don't care too much for money, money can't buy me love.

I'll give you all I got to give if you say you love me too.  
I may not have a lot to give but what I got I'll give to you.  
I don't care too much for money, money can't buy me love.

Can't buy me love, everybody tells me so. Can't buy me love, no no  
no, no.

Say you don't need no diamond ring and I'll be satisfied.  
Tell me that you want the kind of thing that money just can't buy.  
I don't care too much for money, money can't buy me love.

# Practical Applications

- Know your client's AAC system
- Give your client time to answer questions
- Be involved in making suggestions for pages/vocabulary in system, if applicable
- Create communication boards for you MT sessions
- Have choice boards as needed
- CORE VOCABULARY!!
- Ask questions, attend trainings

# References

- Baker, B. (2005). *Motivation Formula*. Retrieved from Assistive Technology Training Online Project (ATTO) web site:  
<http://atto.buffalo.edu/registered/ATBasics/Populations/aac/vocabulary.php>
- Beukelman, D., & Mirenda, P. (1998). *Augmentative and Alternative Communication: Management of Severe Communication Disorders in Children and Adults, Second Edition*. Baltimore, Maryland: Paul. H. Brookes Publishing Co.
- Foulds, R. (1980). Communication rates of nonspeech expression as a function in manual tasks and linguistic constraints. In *Proceedings of the International Conference on Rehabilitation Engineering*(pp. 83-37). Toronto, Ontario, Canada: RESNA Press.
- Foulds, R. (1987). Guest editorial. *Augmentative and Alternative Communication*, 3, 169.
- Goldman-Eisler, F. (1986). *Cycle Linguistics: Experiments in spontaneous speech*. New York: Academic Press.
- Goossens', C., Crain, S, & Elder, P. (1992). *Engineering the preschool environment for interactive symbolic communication*. Southeast Augmentative Communication Conference Publications.