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Using Client Interests to Facilitate Success in AAC and Intervention

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Learning Objectives

- 1. State three benefits of understanding client interests
- 2. Match client characteristics to the appropriate method of determining interest using the Interest Inventory
- 3. Identify three ways to use take advantage of client interests in AAC service delivery

Background

- 60%-80% of daily interactions centers around topics of personal interest (Ward, 2013) including relationships, experiences, scheduling, and comments (not facts) on topics (Dunbar et al, 1997)
- Self-disclosure
 - Triggers the same areas of the brain responsible for primary rewards such as food (Tarmir & Mitchell, 2012)
 - Influences survival, happiness, personal growth, and performance (Ward, 2013)

Question

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How do we as SLPs more thoroughly and accurately assess a client's interests to increase functional results of therapy and augmentative-alternative communication (AAC)?

Overall Benefits

- Increased motivation and satisfaction with communication (Tarmir & Mitchell, 2012; Fox et al, 2001) which may lead to greater participation in intervention (Koegel, 2010)
 - Facilitation of skill development
 - Holistic processing given personal images (McKelvey, 2010)
 - Joint attention (Kryzak et al, 2013; Vismara et al, 2007)
 - Pretend play (Porter, 2012)
 - Verbal responses (Lee & Strumey, 2006)
- Expanded functional use/participation (Chapey et al, 2008; Koegel et al, 2012; Wepman, 1964)

Identifying Interests

- Ask client/family/caregivers
- Experiment
- Interest Inventories
 - AAC Needs Assessment For all ages and diagnoses, free from Tobii Dynavox
 - Focuses on topics (interests, environments), specific language functions, and communication partner skills
 - Requires reading skills, assistance or modification
 - Aphasia Needs Assessment Individuals with aphasia, free from UNL website
 - Focuses on challenging activities, favorite topics, difficult communication skills, and communication partner skills
 - Requires reading skills, assistance or modification
 - Autism Online Interest Inventory Teen/young adult with ASD, free from Autism Online
 - Focuses on likes and dislikes, environmental preferences, with an optional activity using found images to show interests

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- Requires reading skills, assistance or use of optional activity
- Tobii Dynavox Interest Inventory Individuals with aphasia and brain injury, free
 - Focuses on topics and life activities
 - Image-based and text-based approaches
- Others in resource list below

Using Interests in Therapy

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- Establish goals based on interests
 - o May require negotiation if priorities differ
 - \circ $\$ Focus on motivation of the individual and impact on daily life
 - o Regardless of communication method(s)
 - o Expand interest areas
 - Consider similar activities
 - Repeat interest inventories using a different "lens" prior interests, family interests, interests of a favorite person
- Using Interests in Therapy
 - o Select therapy stimuli and materials (including behavior supports) centered around interests
 - Use relevant images
 - Customize messages for use
 - Teach use then navigation
 - Expand vocabulary

Using Interests in AAC

- Select most appropriate AAC tools and techniques based on client interests, skills, and support
- Using Interests in AAC
- Include topics and vocabulary about interests in AAC tools
- Encourage use of less motivating vocabulary by including interests as appropriate

Discussion/Conclusion

Client interests can:

- Positively impact participation in therapy/interaction as well as skills in a variety of areas
- Be quickly assessed using a variety of tools
- Point us to appropriate therapy goals
- Impact selection of AAC tools and content

Interest Inventories Resource List

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Outcomes of AAC Acquisition in Pediatric Intensive Speech Model, A Case Study

Heather McDaniel, M.S. CCC-SLP; Teresa Ankney, M.A. CCC-SLP

The outcomes of intensive speech therapy for AAC acquisition were measured in a child. The four year old and parent participated in treatment five days a week for three weeks using a four- choice communicator. Results indicate direct and secondary benefits from intensive therapy focused on AAC acquisition.

The following depicts the child's performance prior to intensive therapy and at the conclusion of intensive therapy:

Pre-Intensive Therapy:	Post- Intensive Therapy	
 17 months of weekly/twice weekly individual SLT sessions Multiple devices trialed using maximum cues and hand over hand assistance- no consistent use No initiative to purposefully request activities No initiative to identify familiar people/objects given verbal prompt Some increases in functional play; however, frequently chose to play with parts of toys rather than toys as a whole 	 45 minute sessions, five days a week for three weeks Purposefully activated a switch on a four choice communicator given a verbal prompt or visual cue Increased joint attention Discriminated between three different pictures/buttons to request activities Increased awareness of communication partners Increased functional play 	
frequently chose to play with parts of toys rather than toys as a whole	 Increased functional play Increased following directions of one step commands 	

The following graph depicts the number of requests the child made pre-, during, and post- intensity:



Outcomes of AAC Acquisition in Pediatric Intensive Speech Model, A Case Study

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Therapeutic Course:

Child participated in an intensive speech program consisting of forty-five minute speech sessions five days weekly for three weeks. Therapy incorporated use of a four-choice communicator using pictures and objects with the intent to increase discrimination and requesting of preferred items. One adaptation made to the device included placing a black piece of paper under the desired object in the compartment as a contrasting background to increase visual attention. During therapy, the device was placed on the front right side of the child on a therapy bench. A preferred item was placed in a specific compartment of the four- choice communicator. He activated a switch when he reached for the desired object. After approximately five sessions, the desired objects were faded out/withdrawn from the compartment and the patient was required to activate the switch in the compartment that previously held the object/activity but now contained only the referent picture.

Measurement: Child's frequency of the activation of the device was tracked and monitored throughout this intensive program along with proper discrimination of the chosen object/activity.



Fig 1: Initial set up of four choice communicator for intensive therapy



Fig 2: Final set up of four choice communicator for intensive therapy

PROGRESS MONITORING STRATEGIES

for Children with Complex Communication Needs Who Use AAC

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LEARNER OUTCOMES: Participants will be able to

- 1. Explain the importance of progress monitoring in the intervention process
- 2. Write goals for children with complex communication needs in each of Light's (1989) four communicative competency areas (i.e., strategic, social, linguistic, and operational).
- 3. Describe strategies for monitoring students' progress towards goals.

WHAT IS PROGRESS MONITORING?

PROGRESS MONITORING, as it relates to students with disabilities, is the scientific practice of assessing a student's progress and evaluating the effectiveness of an intervention (IDEA, 2004).

HOW DO WE MONITOR PROGRESS?



What are some of the challenges of monitoring progress in children with complex communication needs?

WRITING GOALS FOR CHILDREN WITH COMPLEX COMMUNICATION NEEDS Communicative Competence & SMART goals

COMMUNICATIVE COMPETENCE

- Linguistic Competence refers to not only the receptive and expressive language skills of the student's native language(s) but also the knowledge of the linguistic code unique to their AAC system (e.g., picture symbols, line drawings, real photos, words).
- Operational Competence encompasses the technical skills needed for effective and efficient operation of the student's AAC system.
- Social Competence includes skills of social interactions such as initiating, maintaining, developing, and terminating communication interactions.
- Strategic Competence entails the compensatory strategies used by people who rely on AAC to accommodate for functional limitations associated with AAC.

(Light, 1989, Light, 2003, Light & McNaughton, 2014)

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POTENTIAL INTERVENTION TARGETS:

- Increase symbol knowledge and use. Linguistic competence
- Increase the average number of symbols sequenced to compose a message. *Linguistic Competence*
- Expand types of sentence constructions (e.g., actor-action-object). *Linguistic Competence*
- Increase rate of initiation for preferred and non-preferred activities. *Social Competence*
- Increase rate of communicative acts. Social Competence
- Increase social responsiveness. *Social Competence*
- Expand range of purposes for communication. Social Competence
- Navigate back to home page. Operational Competence
- Activate message bar. Operational Competence
- Turn system on/off. *Operational Competence*
- Transition AAC system from one activity to the next. *Operational Competence*
- Locate activity specific pages/folders. Operational Competence
- Develop a means to indicate a need for assistance, an activity is too hard, he does not like the activity. *Strategic Competence*
- Recognize a failed communication attempt. *Strategic Competence*
- Repair a communication breakdown. Strategic Competence
- Use a single term for multiple functions. *Strategic Competence*

SMART GOALS are specific, measureable, attainable, relevant, and timely.

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DATA COLLECTION



POTENTIAL DATA POINTS

Linguistic Competence

- Symbol Inventory
- Total number of different symbols used by the student
- Total number of core vocabulary words
- Total number of fringe vocabulary words
- Mean number of symbols per message
- Inventory of language constructions

Operational Skills

- Inventory of navigational tools
- Transition of AAC system
- Description of AAC System

Social Competence

- Inventory of communicative purposes
- Rate of initiations
- Rate of responses
- Ratio of initiations to responses

Strategic Competence

- Response to communication break down
- Multifunction word use

AAC for the Generalist: When, Where, and What to Explore

Learner Outcomes:

Respond to frequently asked questions regarding AAC

Discuss when, where, and what to explore when beginning to implement AAC

Identify and describe 7 communication partner strategies

Summary:

This presentation is geared towards providing the generalist pediatric or school based SLP with strategies necessary to begin to explore the use of Augmentative and Alternative Communication. Frequently asked questions, determining when, where, and what to explore related to AAC, as well as how to be a better communication partner will be discussed. It is a highly interactive presentation with videos, case studies, and games.

1. Frequently Asked Questions:

- a. "Why use AAC? "To increase expressive and receptive language, to increase speech, to improve behavior, to increase participation/social interaction, to demonstrate knowledge.
- b. "Will using AAC stop my child from speaking?" *No. Research has shown that it increases the development of speech*. <u>http://aac.unl.edu/yaack/toc.html</u>
- c. "What prerequisites are there for the use of AAC? "*There are NO prerequisites for the use of AAC*.
- d. "Does there need to be a gap between receptive and expressive language?" *No. AAC strategies can be utilized to teach receptive language.*
- e. "Should we use sign language?" Sign language is an efficient and functional means of communication. It is limiting, in that, communication can only occur with other people who know sign language. Other strategies should be used on conjunction with sign language.
- f. "Should I work on responding to yes/no questions?" *Be cognizant of a patient's* receptive language skills. Children need to have the receptive language to understand the question they are being asked. <u>https://www.communicationmatrix.org/</u>
- g. "What is the timeline for using a speech generating device?" It depends on the child.
 Some individuals may need to rely on a speech generating device for their entire life.
 Others use is as a tool to develop their speech and language and eventually no longer need to rely on it.
- h. "Can I use my iPad?" The Ipad can be a highly functional tool; however, an assessment needs to occur to determine the child's understanding of and ability to use visual representations paired with voice output as a functional means of communication.

2. When to Explore the Use of AAC: Ask yourself, "Does my patient <u>currently</u> have a functional means to communicate?" If the answer is no, explore the use of AAC. Keep in mind, working on speech and AAC are not mutually exclusive. You can work on both simultaneously. Use AAC to provide your patient with a means to communicate <u>while</u> continuing to work on developing speech.

3. Where to start:

- a. Communication Matrix (https://www.communicationmatrix.org/)
- b. AAC Intake for SLPs use as guide to know what skills to explore

4. What to Explore:

- a. Cause-effect for communication
- b. Differentiated cause-effect
- c. Understanding of visual representation as a means to communicate
- d. Pair pictures with voice output
- e. Language Functions
- f. Core versus fringe vocabulary

5. Difference between receptive & expressive tools

6. Communication Partner Strategies

- a. Modeling
- b. Sabotage
- c. Wait time
- d. Arranging the environment
- e. Asking open ended questions
- f. Providing choices
- g. Providing visual and verbal cues
- h. Providing clear and consistent expectations

7. When do I refer to an AAC Specialist?

- a. After I have completed the Communication Matrix.
- b. After I have tried and my patient is making progress with a static screen device.
- c. After you have considered all items on the AAC intake form.
- d. If my patient in unable to use direct access (point). May need to consult with OT.

8. Resources:

- a. <u>http://aac.unl.edu/yaack/toc.html</u> Fears and Myths of AAC
- b. Do's & Don't Handout
- c. Communication Bill of Rights (<u>http://www.asha.org/NJC/bill_of_rights.htm</u>)
- d. https://www.isaac-online.org/english/home/

e. <u>http://www.apraxia-kids.org/library/augmentative-and-alternative-communication-aac-for-children-with-apraxia/</u>

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ASHA Poster 290: Getting to the Core of Core Vocabulary: AAC Implementation Strategies for Caregivers and SLPs

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Learner Outcomes:

- 1. Describe core vocabulary and its rationale for use in AAC
- 2. Explain the use of three core words in a common play activity
- 3. Discuss functional opportunities for carryover of core vocabulary into home routines

Background:

In the field of Augmentative and Alternative Communication (AAC), the concept of core vocabulary is thoroughly researched and supported by evidence. Core vocabulary refers to a set of frequently occurring words found consistently in developed and developing language systems. These word lists are constant throughout research regardless of age, gender, or language spoken. Core vocabulary words have a high frequency of use and often seem "generic" in that they are multi-meaning words and do not correlate to one specific, tangible item. Core vocabulary words are not activity nor setting specific, and are the foundation of any generative communication system. In 1987, Vanderheiden and Kelso determined that 80% of adult conversation throughout a given day comes from a small bank of 400-500 core words. A 2000 study by Baker confirmed that 300 core words made up 75-85% of words used in daily communications. The field of AAC has embraced the concept of core vocabulary and these words are often included in pre-fabricated AAC systems. While years of evidence clearly supports application of core vocabulary in AAC, caregivers and clinicians alike often find the multi-meaning words to be abstract and difficult to embed into daily activities. Use of core vocabulary in AAC therapy and equipment recommendation is imperative, however, caregiver understanding and application of such vocabulary is arguably more critical in the long-term success of an AAC user's system.

Often in demonstrating a core based system, caregivers and/or clinicians appreciate the research and concepts supporting the selected vocabulary, but they are unable to envisage how to apply the word "that" during daily activities versus the highly familiar word "pancake" or "Goldfish cracker." Caregivers of AAC users, whether parental or clinical, are typically well-intentioned and enthusiastic in starting to use an AAC system, but quickly become frustrated with the confusing nature of the vocabulary selected. Our team has been consulted by more than one skilled SLP who asked exasperatedly, "what activity or toy goes with this vocabulary?" This well-meaning, yet frustrated therapist may inquire further, "we're playing with a rain forest puzzle but I can't find those words in the device!" or "I can't find the words to play Candyland! How can I add Molasses Swamp??"

At Children's Hospital of Richmond at VCU our assistive technology core team anecdotally acknowledged the challenge that existed in marrying evidence based concepts such as core vocabulary with caregiver training. We found that demonstrating use of a device in a clinical setting, while helpful in theory, did not provide the segmented approach many of our families required in order to successfully grasp the abstract-seeming concepts of core vocabulary. Our clinical team worked together to develop a grant funded program called "AT Recipes for Success." This program was created in order to support caregivers and clinicians in using and expanding core vocabulary in a highly scaffolded and planful way. Our program provides caregivers with target words to use during common play routines such as shared book reading or bubbles, as well as a step-by-step recipe for using core vocabulary in a concrete way. The recipes also provide suggestions for carry-over of linguistic skills into daily activities to allow device users to generalize the language skills. In applying our unique and innovative "AT Recipes for Success" program we have had great feedback from therapists and parents alike regarding improved understanding and use of core vocabulary in structured, and then unstructured activities.



Let's Chat: Assistive Technology Recipes for Success!



What do you need?

Paint dotters, paper, you, and your child!

What do you say?

Core vocab: do, make, turn, need, colors, get, I/you, that, want, help, like, don't

Language Purpose	One Word	Two Words	Three Words
Requesting	Want (with or without	Want that (with	I want that (with
	pointed finger)	pointed finger);	pointed finger);
		Want red	I want (red)
Commenting	Like	l like	I like (it, red, play)
Refusing	Don't	Don't want	Don't want (that,
			car, stop, go)
Directing	Make	You make; I make	You make that;
		l do; You do	I make green;
	Do		l/you do it
Requesting	Help	Need help	I need help
Assistance			

What do you do?

- Use the device to say "want" to ask for a picture and/or paint dotter and point to it. Pretend your paint dotter is hard to open and ask for "help" from your child.
- After you make some dots, tell your child "you do," then let him/her ask for a specific color or picture.
- Try making the paint tops tight so that your child needs to ask for "help."
- Use the device to let your child pick "I do/I make" or "you do/you make" to take turns while painting.
- Find a place to hang your masterpiece! Beautiful!!

What's next?

You can use the same language throughout other activities as well! After your child understands using "I do" or "I make" and "you do" or "you make," have her help you throughout other activities. She can be in charge of choosing who makes her snack, who completes each step in making cookies, who turns the page in a book... the possibilities are endless! What other opportunities can you find at your house?

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