

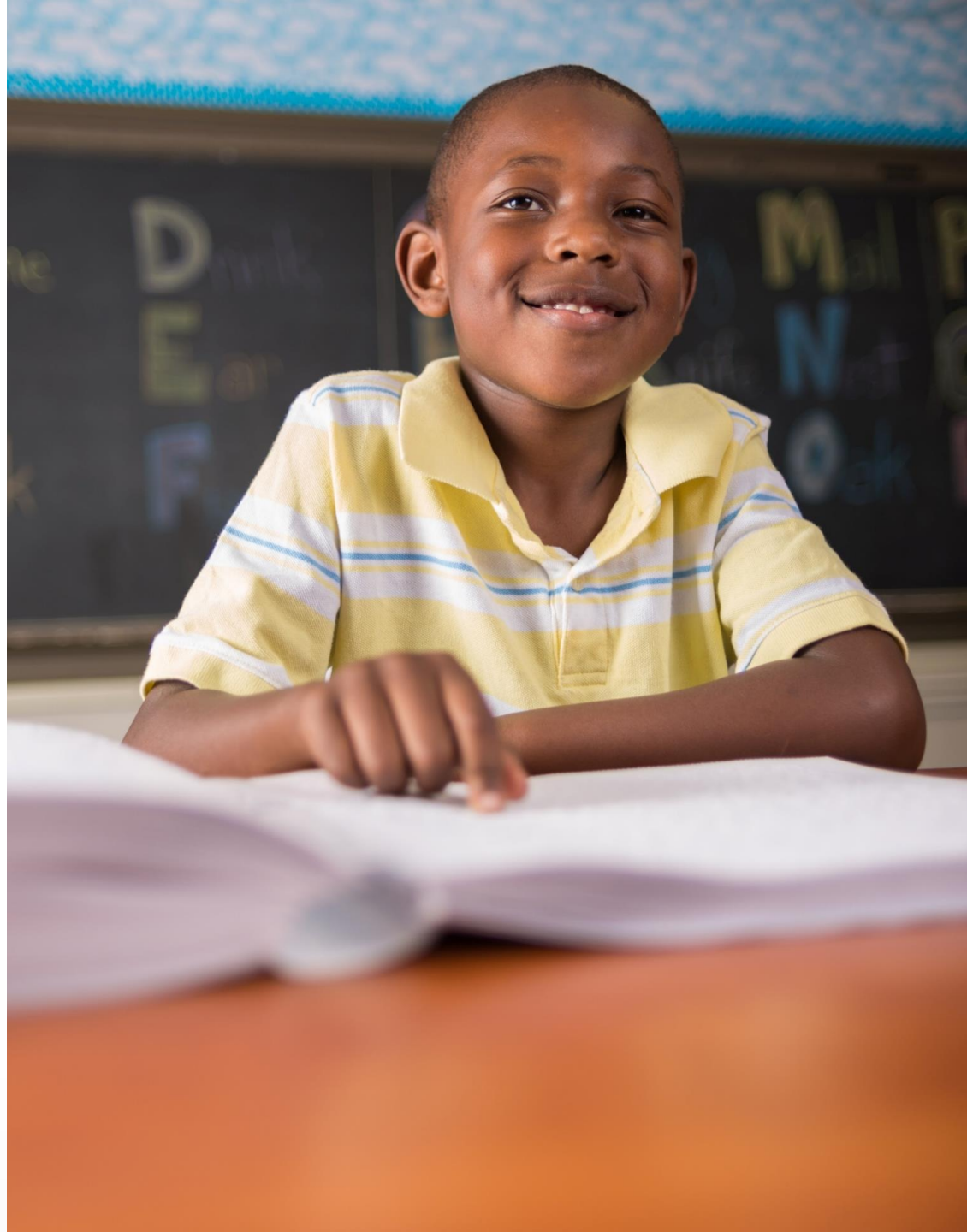
Supporting Communication of Students with Significant Cognitive Disabilities

Session Objectives

1. Describe the importance of teaching and recognizing communication skills in students in order to increase independence and access to academics.
2. Describe the connection between behavior and communication.
3. Identify strategies and best practices for increasing student communication skills.

Agenda

1. Overview and Objectives
2. Communication, Language, and Speech
3. The Connection Between Communication and Behavior
4. Evidence-Based Strategies for Increasing Communication Skills
5. Wrap-Up and Next Steps



Engagement Tools



**Engagement
Guide**



Discussion



Resource






Poll

 Text **ASHLEYQUICK663** to **22333** once to join



New Message Cancel

To: 22333

https://www.polleverywhere.com/multiple_choice_polls/Geb1w0l4QXsaaa7q88hb

Communication, Language, and Speech

"I just can't do this"

"She won't answer any questions"

"She can't do anything more than ask for food"

"He just doesn't understand how to use this"

"He doesn't even hit any of the buttons"

"I don't know how to move forward"

"I'm not even sure where to find the words we need"

...

yet

"It doesn't seem like we are making any progress"

"I don't understand what she means when she picks words"

"The family isn't willing to use it at home"

"No one else is modeling for this student"

"Modeling hasn't made any kind of difference"

"Unless I prompt her, she won't say anything"



Communication ≠ Language

Language develops through
experiencing the world
by seeing, hearing, touching,
tasting, and smelling.

We usually understand many words
before we start to speak our first words.



Common Methods of Communication

- Body language
- Gestures
- Sign language
- Single-meaning pictures
- Multiple-meaning pictures
- Core and fringe vocabulary
- Eye gaze



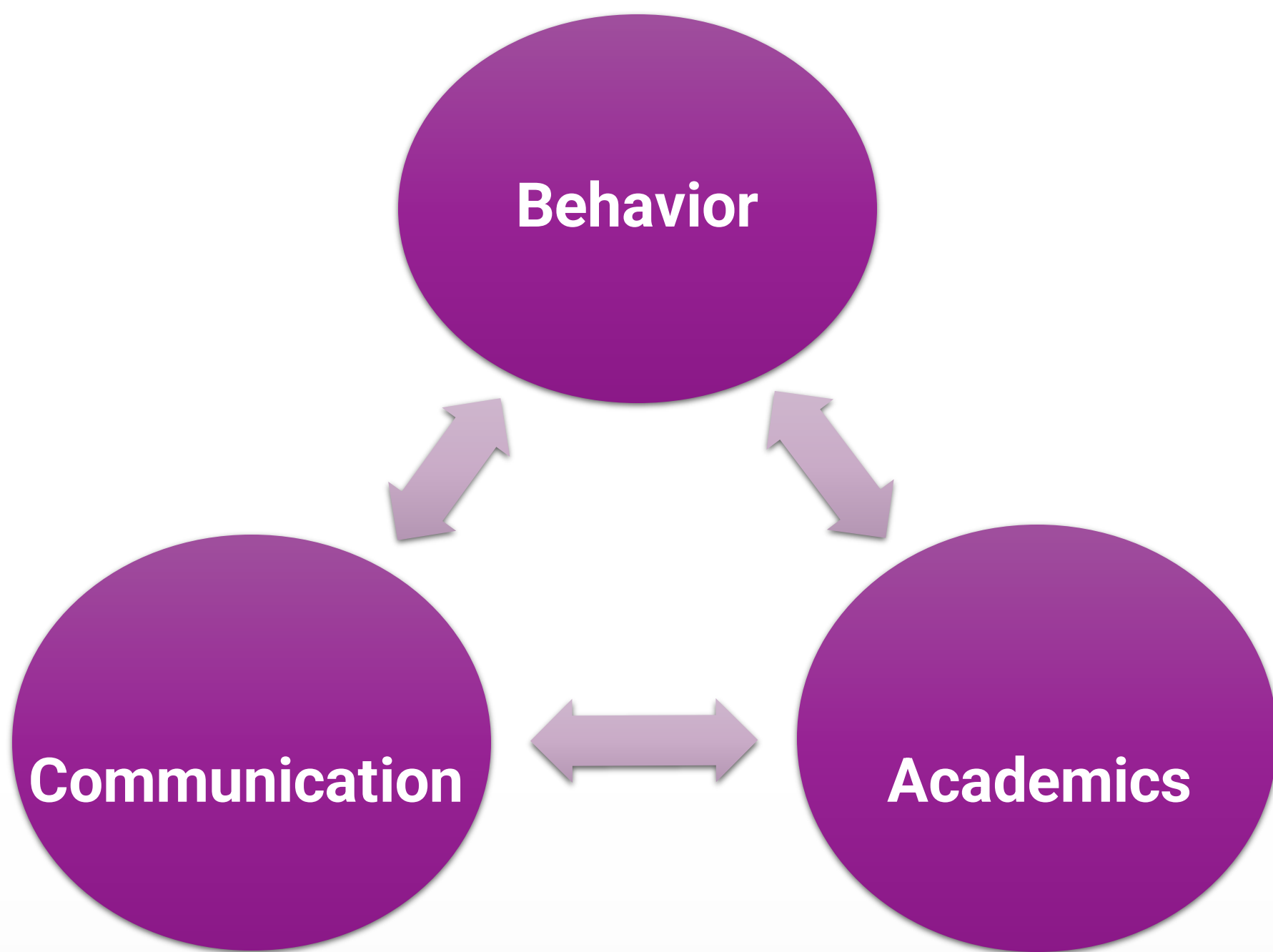
“ ”

Only when communication is recognized and consistently reinforced will those with significant physical, sensory-motor, communicative, and developmental differences find the effort to communicate *worthwhile*.

Common Reasons for Communication

- Ask for an item or activity
- Request comfort or reassurance
- Ask for information
- Protest or indicate something is unwanted
- Greet someone
- Share an interest
- Express feelings

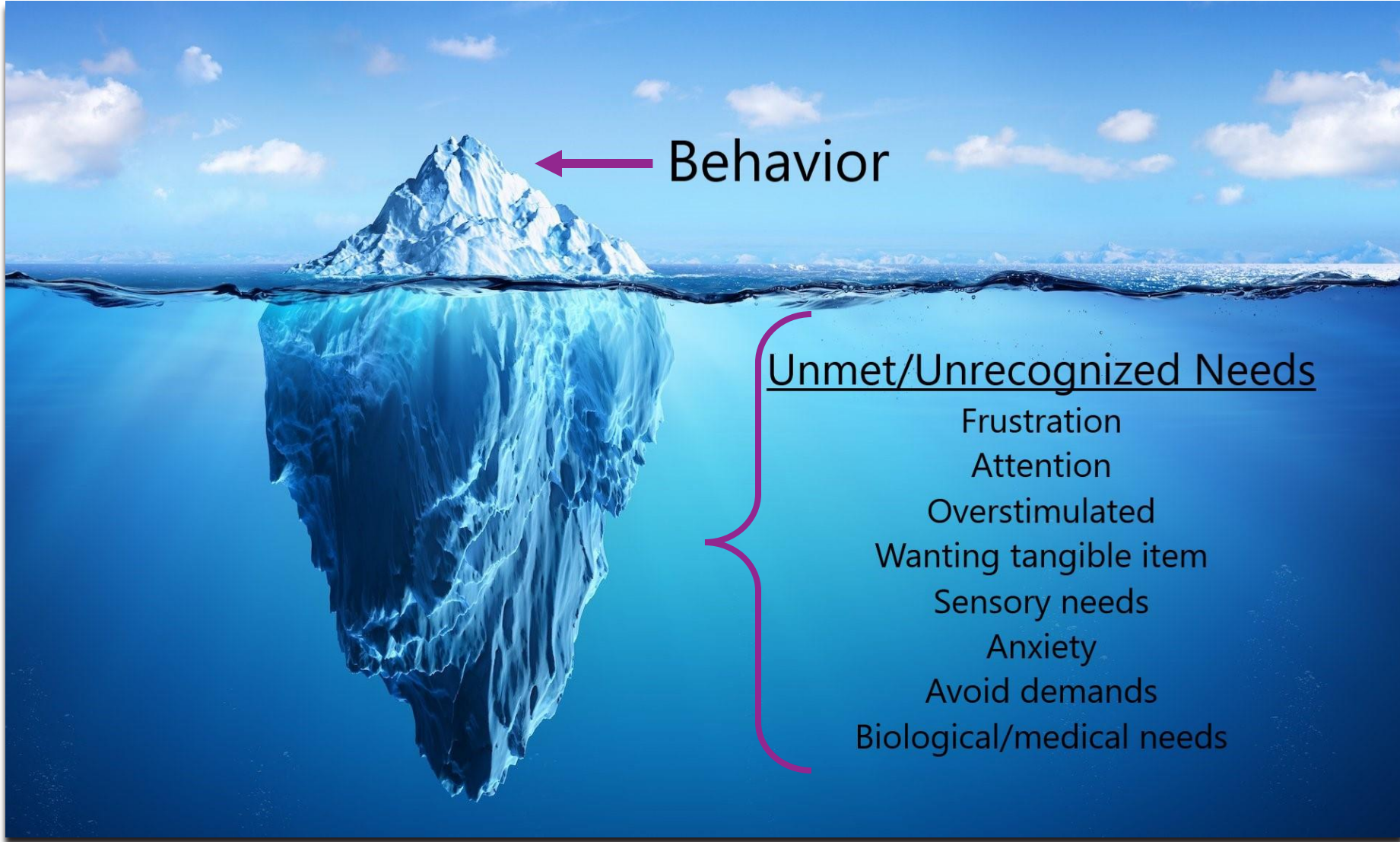
The Connection Between Communication and Behavior



All behavior, including challenging behavior, is a form of communication.



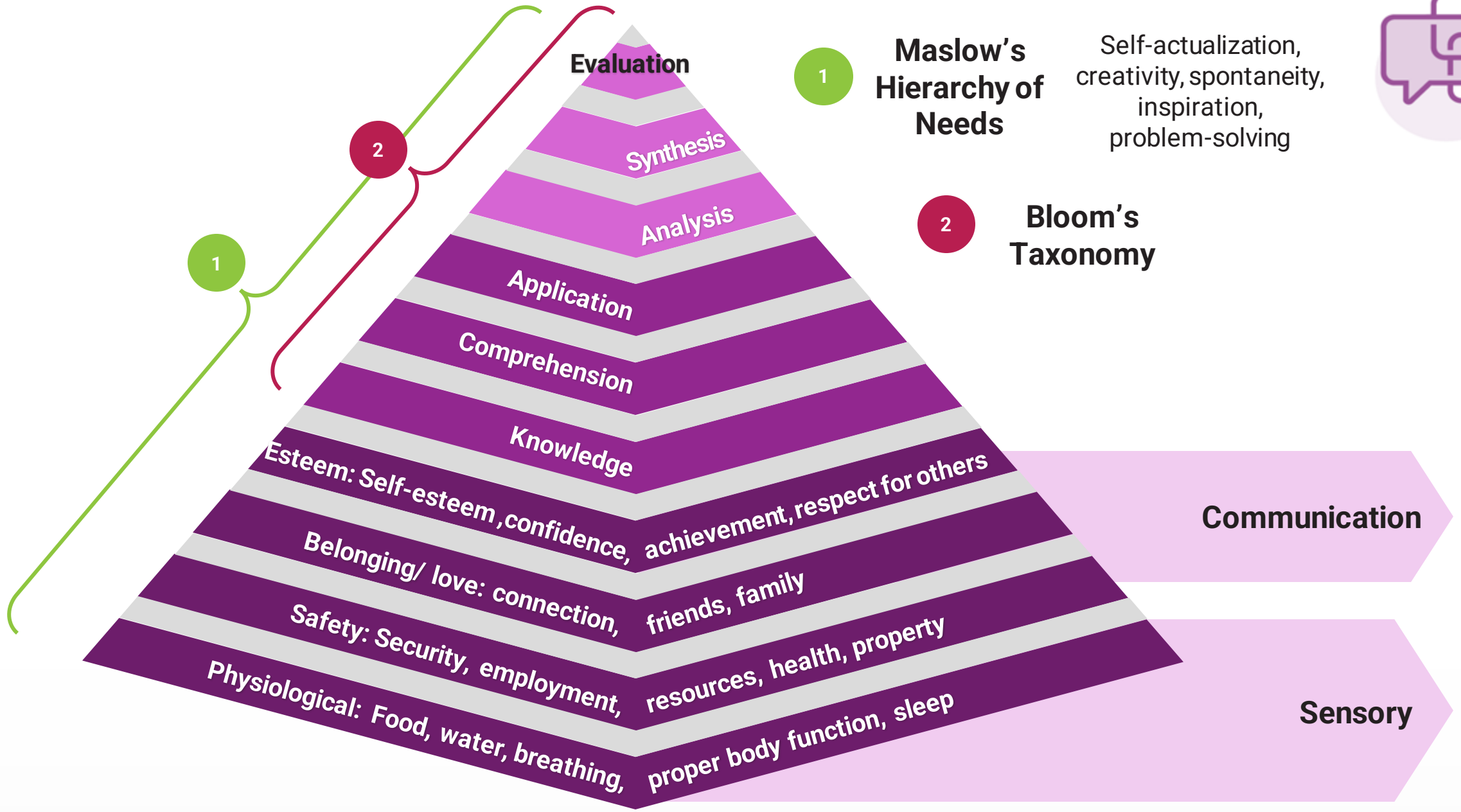
Article: [Behavior is Communication: A Deeper Dive](#)



← Behavior

Unmet/Unrecognized Needs

- Frustration
- Attention
- Overstimulated
- Wanting tangible item
- Sensory needs
- Anxiety
- Avoid demands
- Biological/medical needs



Evaluation

1

Maslow's Hierarchy of Needs

Self-actualization, creativity, spontaneity, inspiration, problem-solving

Synthesis

2

Bloom's Taxonomy

2

Analysis

1

Application

Comprehension

Knowledge

Esteem: Self-esteem, confidence, achievement, respect for others

Communication

Belonging/ love: connection, friends, family

Safety: Security, employment, resources, health, property

Sensory

Physiological: Food, water, breathing, proper body function, sleep

When you determine the function of a challenging behavior (what the behavior is communicating)...

...you can then provide proactive supports and aligned strategies to minimize the behavior and increase methods of communicating.



Avoid

Obtain

Escape:
environment,
situation,
task, person

Sensory input:
sounds, smells,
tactile sensations

Attention:
peers, adults

Tangible:
preferred
item or
activity

* **Medical:** allergies, change in medication, etc.

The 'What' of Behavior Functions

	Avoid	Obtain
Attention	To avoid potential embarrassment	To elicit a reaction from others, seeking connection
Sensory Input	To escape unpleasant smells, sounds, and/or tactile sensations	Seeking out pleasant sounds, smells, and/or tactile sensations
Tangible	To get away from an unpleasant or undesired item/object	To acquire or control a pleasant or desired item/object
Task/Setting	To escape an unpleasant or undesired task, activity, person, and/or environment	To gain access to a pleasant or preferred task, activity, person, and/or environment

How to Respond to Behavior Based on Function

	Avoidance-Focused Behaviors	Obtaining-Focused Behaviors
Attention	Teach the student to request a break when needed.	Teach the student how to request and receive positive attention through engaging in desirable behaviors.
Sensory Input	Be proactive about removing sensory irritants in the student's environment. Teach the student to use strategies to compensate.	Teach a functional replacement behavior that provides compatible sensory input.
Tangible	Teach the student to request for the item/object to be moved or put away.	Teach the student to ask for, wait, and/or exhibit a specific behavior prior to granting access to the item.
Task/Setting	Teach the student to request a break when needed. Divide tasks into small parts or give structured choices within activities.	Include preferred tasks/settings in daily routines and/or incorporate desired tasks/settings in student behavior plans.

How to Respond to Behavior Based on Function: Examples

	Avoidance-Focused Behaviors	Obtaining-Focused Behaviors
Attention		If a student screams to gain attention, ignore (if possible) and be intentional about providing praise when their voice is quiet.
Sensory Input	If a student is sensitive to sounds, allow noise-cancelling headphones or earbuds with music playing.	If a student consistently puts non-edible items in their mouth, provide access to gum or a chew.
Tangible		If a student begs to use the iPad, provide access following the completion of a task or assignment (First-Then strategy).
Task/Setting	If a student wanders around the room rather than completing a task at their desk, prompt them to use a break card.	

The Shaken Soda Effect

1. The shaking (stressor) might not have a noticeable effect in the moment.
2. That doesn't mean it hasn't had an effect at all.



Scenario



James has a significant cognitive disability and is non-speaking. Teachers report concerns about his aggressive behavior toward staff and other students. He was referred to a clinical psychologist and a functional analysis of his behavior was conducted. ABC charts revealed that triggers to his behavior included being asked to share the bean bag chair with other students or to complete a nonpreferred task such as joining a whole group lesson. When such demands were made, he shouted and screamed at staff, threw objects, and pushed and hit staff and other students. Staff responded to his behavior by allowing him to use the bean bag chair on his own and allowing him to escape the whole-group lesson. It was noted that his behavior was worse after an epileptic seizure or if he had not been sleeping well at night. A hypothesis was developed that the function of his behavior was to avoid or escape demands, and that staff were reinforcing the behavior by allowing him to avoid tasks. A positive behavior support plan was developed whereby he was taught to hold up a card to indicate that it was his turn to use the bean bag chair and he would then wait for his turn. If he used the card instead of becoming aggressive, he was praised and rewarded with a preferred item to hold while he sat in the bean bag chair.

- **What is his behavior telling us?**
- **What could we do differently to address this behavior (and the function behind it)?**

Evidence-Based Strategies for Increasing Communication Skills

Evidence-Based Strategies for Increasing Communication Skills

- Classroom Strategies
 - Wait Time
 - Visual Cues and Supports
 - Manipulate the Environment
- Core Vocabulary
- Augmentative and Alternative Communication (AAC)

The Critical Role of Wait Time



Pausing for **three or more seconds** shows a noticeable positive impact on learning.

The average length that teachers pause was found to be **0.9 seconds**.



<https://www.edutopia.org/article/extending-silence>



Video: [Elementary Example of Wait Time](#) (2:45)

Video: [High School Example of Wait Time](#) (3:15)

Use Visual Cues and Supports

VISUAL
<i>Static</i> = doesn't move or change
Can refer back to it

AUDITORY
<i>Transitory</i> = not permanent
Once you hear it, it's gone





What is a Visual Schedule?

- Communicates the sequence of upcoming tasks, activities, or events
- Uses objects, photos, icons, and/or words
- Designed to match a student's individual needs
- Can vary in length and format

Visual Schedule: Examples



Classroom Schedule









 Breakfast
 Morning Meeting
 Math
 Reading

Schedule

Do not put these cards into "To Do" schedule. Move when "All Done"

To Do	All Done
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

<input type="checkbox"/>		Welcome
<input type="checkbox"/>		Check In
<input type="checkbox"/>		Teaching new skill
<input type="checkbox"/>		Practice Skill
<input type="checkbox"/>		Choose a game
<input type="checkbox"/>		Let's write a note
<input type="checkbox"/>		Goodbye

Arrival	
Breakfast	
Large Group Story Time	
Morning Meeting	
Gross Motor (1)	
Centers	
Snack	
3K Dismissal	



Create an Effective Visual Schedule

- ✓ Identify the skill, routine, or activity.
- ✓ Break it down into simple steps.
- ✓ Determine the length of the schedule.
- ✓ Select an appropriate format.
- ✓ Teach the student how to follow the schedule.
- ✓ Include a way for the student to indicate when steps have been completed.
- ✓ If a student struggles to master a specific step, consider simplifying the step further by breaking it down into smaller parts.



Reflect: Visual Cues and Supports

- Where do you excel with this strategy?
- In what ways can you share this strategy with your colleagues, such as paraprofessionals?

Manipulate the Environment

- ❑ Place materials out of reach
- ❑ Present wrong supplies or in small increments
- ❑ Put snacks in storage containers
- ❑ Pause when reading books
- ❑ Leave lights off when returning to classroom
- ❑ Use wait time when leaving the room or starting an activity
- ❑ Present a book upside down

Communication Considerations

1. Support student *understanding* of communication and language.
2. Support student *communication* through language.
3. Support educators to be attuned to the meaning of a student's gestures, vocalizations, and other forms of communication.
→ e.g., *Communication Dictionary*

Communication Consideration

#1: Strategies to Support Student Understanding



- **Provide opportunities to hear the same words, associated with the same situations, over and over again.**
- Be **face-to-face** when speaking with your student.
- **Use gestures, objects, or pictures** with your words (e.g., pat a chair when saying “Sit down”).
- **Name what your student is doing or interested in** (e.g., say “Sarah is painting” while she is painting).
- Speak **slowly and clearly** using a **few consistent words**.
- **Emphasize** the important words (e.g., “want book”).
- **Name what is in the environment** (e.g., say “school bus” when a school bus is going by).

Communication Consideration #2: Strategies for Supporting Communication Through Language



- Give plenty of time to respond; ask once and then wait.
- Interpret what the student is trying to say:
 - If the student says, “uh-oh” while pointing to something that dropped, tell them, “It fell down.”
- Offer choices:
 - “Do you want blue or red?”
- Add to what the student says to you:
 - If they say “man,” respond by saying, “tall man.”
- Encourage the student to finish your sentence by leaving out last word.
 - “We’re going to the cafeteria to _____.”
- Respond to the student’s attempts to communicate by commenting on what they say:
 - “It sounds like you need help. Can you tell me more about that?”

Educator Support Strategy – Communication Dictionary

- To be used with communication partners who aren't familiar with a student's mode(s) of communication (e.g., body language, gestures, vocalizations)
- Describes student's gestures and vocalizations along with their meanings and suggestions for appropriate responses

Communication Dictionary: Scenario



It is math time in Ms. Harris's fourth-grade class. All of the students are working in pairs on various worksheets. Marv, a student with autism, and his partner Fred are working together. Marv is learning to use a calculator to compute the answers, whereas Fred is working through the equations with pencil and paper. After working for about 5 minutes, Marv dashes to the door of the classroom and loudly vocalizes. Ms. Harris asks him to be seated, but he persists, increasing the volume of his sounds. Ms. Harris asks him to be seated again, but Marv falls to the floor, kicking and yelling loudly. Finally, after yelling for almost 10 minutes, Marv calms down, walks back to his desk, and continues with his math. Ms. Harris comments to a colleague during lunchtime, "Marv had another episode today, this time during math class. I wish I could figure out what he is trying to tell me when he runs to the door and yells like that."

Sample Communication Dictionary

What Marv Does	What It Means	How to Respond
Runs to the door	I want a drink.	Show him the manual sign for <i>drink</i> , prompt him to imitate it, and then allow him to get a drink.
Grabs another student's arm	I like you.	Explain the meaning to the classmate and help them work together, if possible.
Bangs or taps on desk	I am bored; I don't understand what is going on.	Quietly explain to him what is happening using simple language and line drawings as needed.

Core Vocabulary



Core Vocabulary

Small set of simple words used frequently and across contexts

Includes various parts of speech (prepositions, pronouns, adjectives, etc.)

Not very good picture producers

Examples: I, me, know, you, go, want, more, not, have, good, on

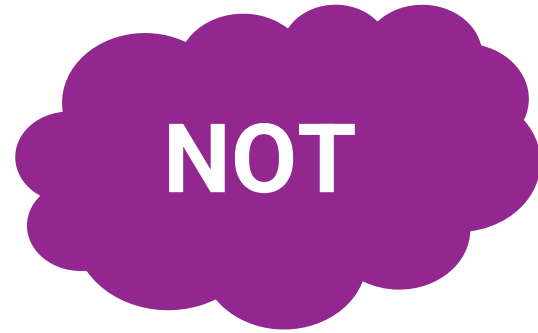
Fringe Vocabulary

Larger set of words used less frequently and in more specific contexts

Includes mostly proper names and nouns

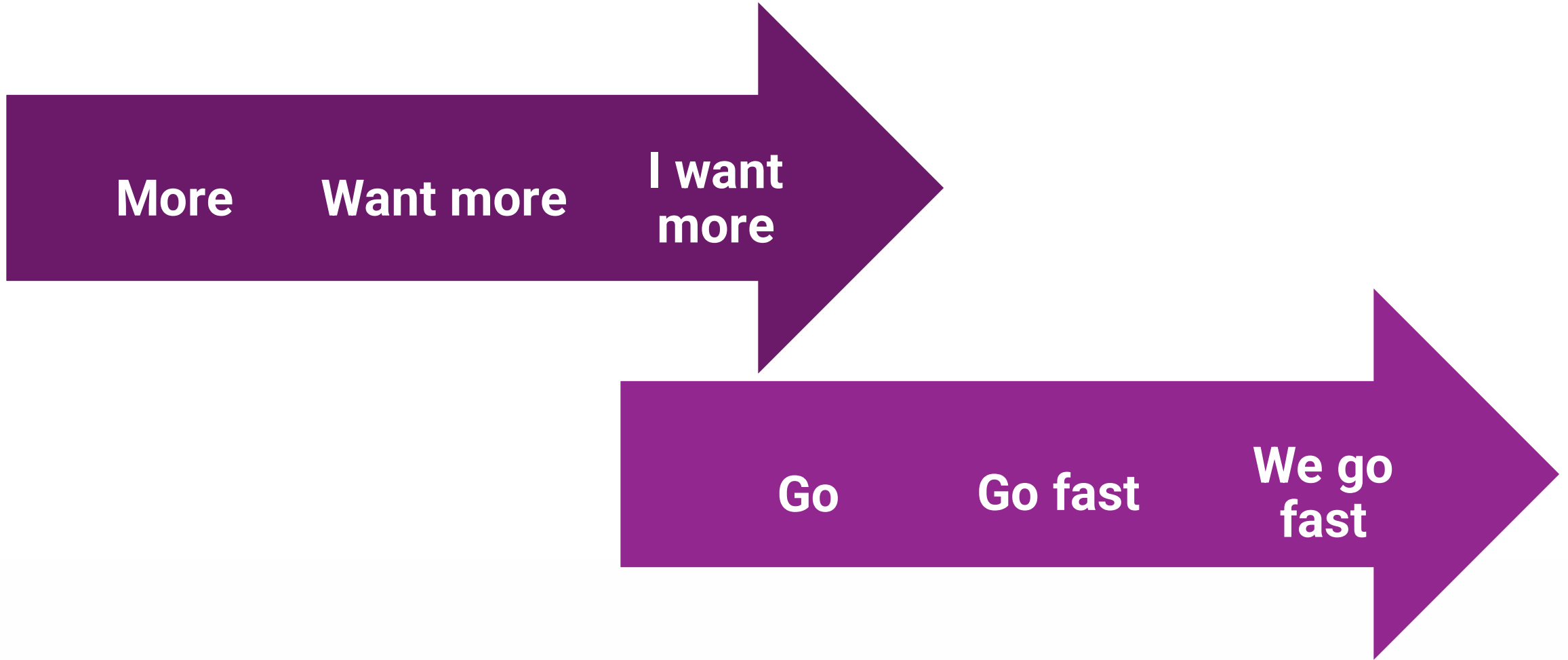
Easier to label

Examples: angle, chair, umbrella, basketball, pizza, teacher, movie



Refusal	Be Social	Share Information	Obtain
Go (away)	Like	Like	Like
Not	Go	Not	Go
Not like	Not		

Core Vocabulary as a Language Builder



Core Vocabulary in the Classroom

Top Core Vocabulary Words



















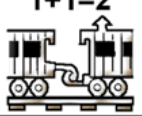

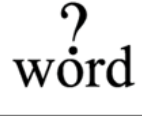


































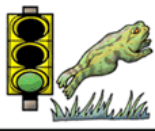









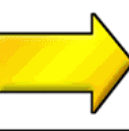

















- all done / finished
- all gone / gone
- bad
- different
- good
- more
- what

Personal Core Vocabulary

- **Key people** (self, close family members, teachers, etc.)
- **Favorite/frequented places** (school, home, favorite restaurant, Grandma's house, etc.)
- **Favorite/motivational things** (milkshake, trains, favorite cartoon character, etc.)



Top 50 Core Vocabulary Words

finished 	mine 	little 	up 	yes 	good 	some 	no 	down 	out 	off 	bad 
me 	my 	wear 	am 	please 	that 	and 1+1=2 	in 	what ? word 	a 	+s 	there 
I 	we 	are 	is 	were 	was 	on 	to to+ 	SPELL/NU 	an 	the 	end 
you 	they 	new 	play 	like 	work 	have 	feel 	read 	more 	fast 	stop 
it 	he 	want 	all 	come 	time 	do 	go 	get 	big 	color 	help 
she 	look 	slow 	hear E 	think 	right 	said 	live 	love 	follow 	ride 	put 
CLEAR	not 	talk 	sit 	eat A 	find 	make 	need 	drink 	watch 	turn 	sleep 





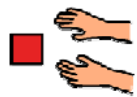
























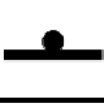








Manual Communication Boards

- Simple: 1 page, portable, and postable
- Can be customized for the needs of the student
- Easily changeable (vocabulary, design, etc.)
- Relatively inexpensive to develop
- Usually less intimidating than devices to communication partners
- Low maintenance for caregivers and communication partners

Consistent Core: Phase 1

Phase 1: Early Teaching

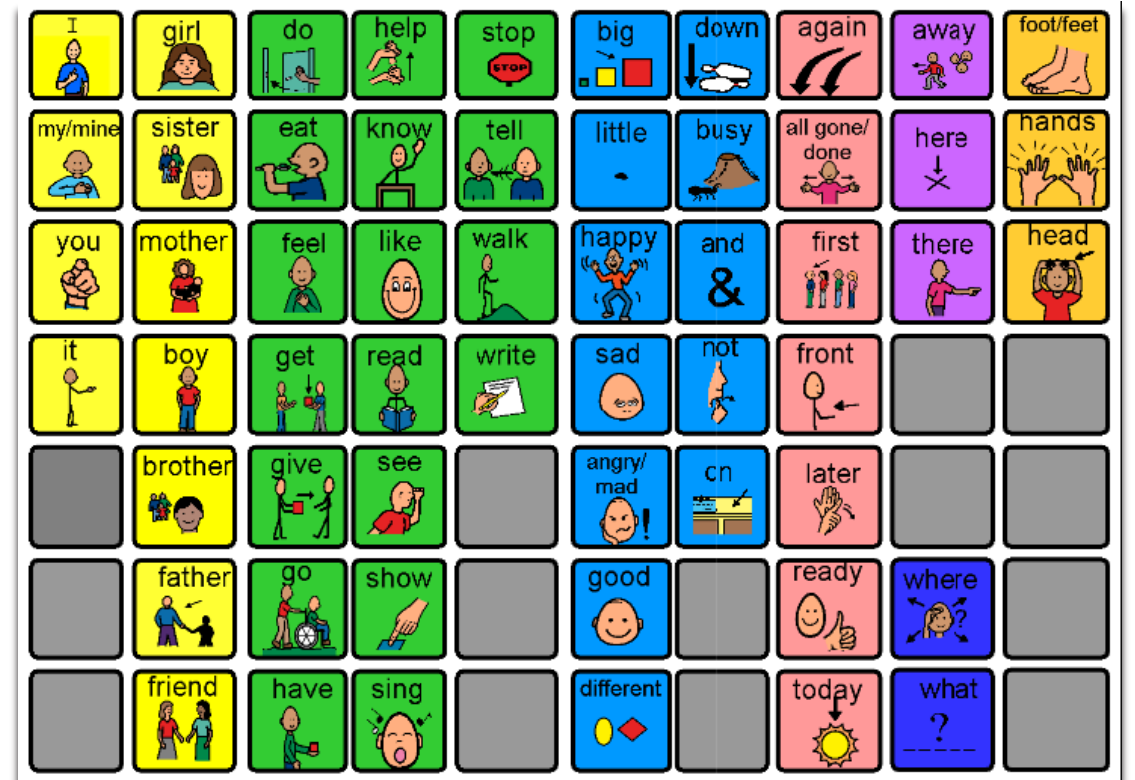
- Use a classroom board with enough, but not too much, core vocabulary (36-word board).
- Use individual symbols from the wall chart.

like 	want 	get 	make 	good 	more 
not 	go 	look 	turn 	help 	different 
I 	he 	open 	do 	put 	same 
you 	she 	that 	up 	all 	some 
it 	here 	in 	on 	can 	finished 
where 	what 	why 	who 	when 	stop 

Consistent Core: Phase 2

Phase 2: Everyday Use

- Customize classroom boards for each student's needs.
 - Expands beyond 36 words.
 - Easier for students to transport.
- Boards are with the student as much as possible.



Example 1: Teaching *what*

Model and prompt the word *what*. Say:

- I brought some new things for you today and you don't know what they are.
- You need to ask me what I brought.
- Say the word “what” to find out what I brought for you.

Expand:

- What in
- What there
- What in there

Example 2: Teaching *help*

Create a barrier or difficulty so the student needs to request assistance.

Model and prompt the word *help*. Say:

- Sometimes I need to help you do things.
- Let me know if you need help.
- Say “help” and we can do it together.

Expand:

- help me
- you need help
- I help you

Example 3: Teaching *look*

Model and prompt the word *look*. Say:

- Look at the objects in the container, but don't take them out.
- Let's look through the other objects in the container.
- Look! (Do something out of the ordinary with one of the objects and draw the student's attention.)

Expand:

- look (at) me
- I look
- look there

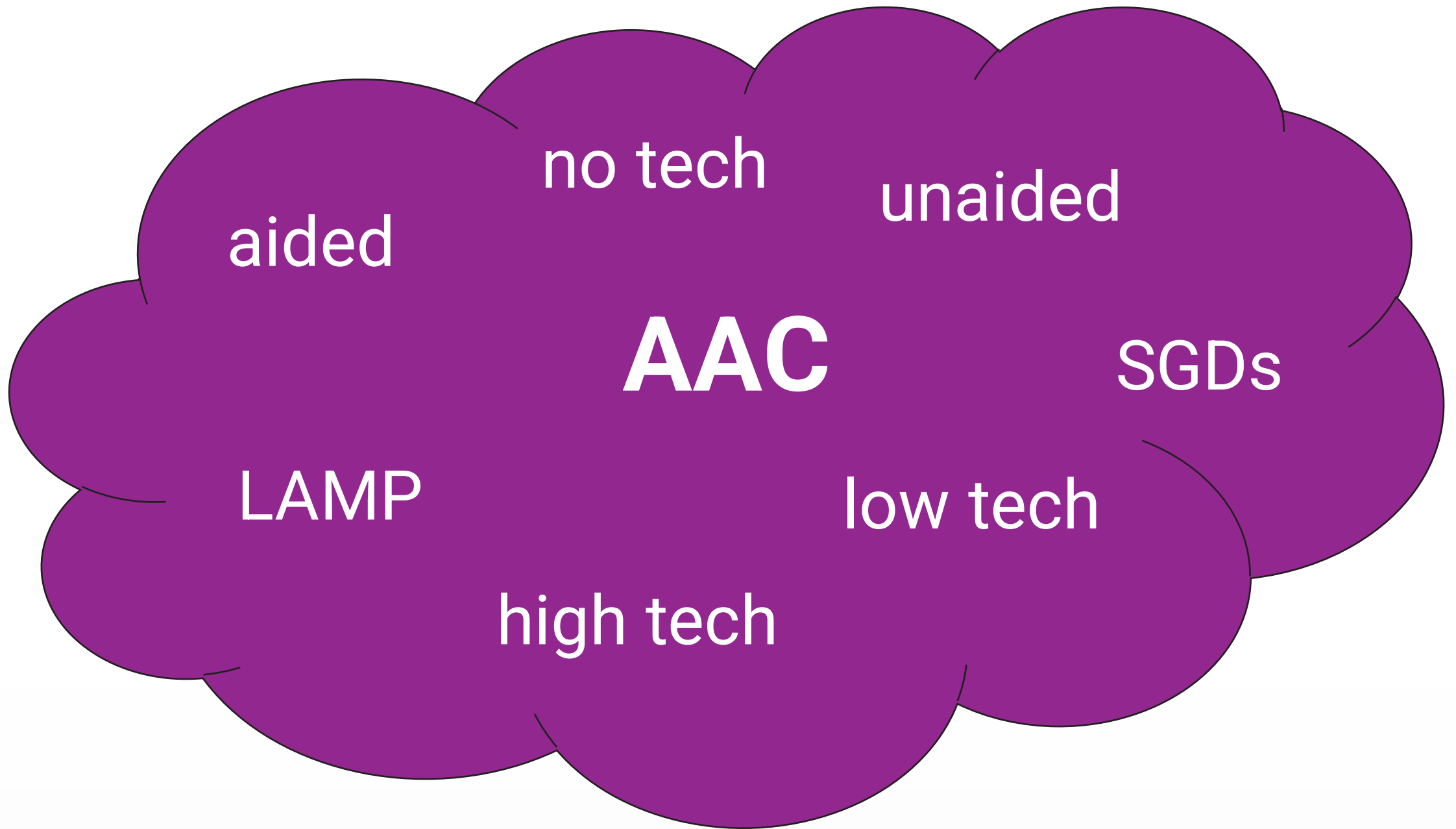
Augmentative and Alternative Communication

“Communication methods used to **supplement or replace** speech or writing for those with impairments in the **production or comprehension** of **spoken or written** language.”

“A **wide range of nonverbal communication methods**, from sign language and picture boards to mobile device apps and sophisticated, dedicated speech-generating devices (SGDs).”
(PRC, 2019)

Augmentative & **A**lternative **C**ommunication

“Anything that **supports communication** when traditional methods are insufficient.”
(Cress, 2018)



The Baker Equation

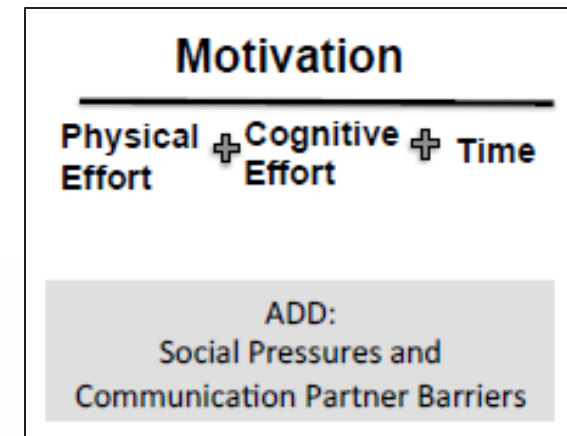
Motivation: How much the person wants to communicate their message with the available words to do so.

Physical effort: The amount of effort/energy required to produce the message.

Cognitive effort: Remembering where a message is located or how it is coded

Time: How long it takes to produce the message.

“If the motivation to communicate a message is greater than the physical effort, cognitive effort, and time required to produce it, then communication will occur. If not, no message will be generated.”



Low Tech versus High Tech

Low Tech

- Writing/drawing
- Spelling words by pointing to letters
- Pointing to pictures or words

High Tech

- Using an app on an iPad or tablet
- Using a computer with a voice (speech-generating device or SGD)

AAC in the Classroom (1)

- **Manage, but don't punish, intentionally disruptive communication.**
 - Don't take away the AAC system.
 - Make it clear that the disruption is being punished, not their communication (e.g., student keeps device but loses a privilege).
 - Adjust features in the device , as needed, to reduce the possibility of disruptions.
- **Don't make the AAC system a burden or punishment.**
 - "I guess we'll have to get out your device...It just takes so much time."
 - "If you don't stop doing that, you'll have to go with Ms. G and work on your talker."

AAC in the Classroom (2)

Conduct AAC awareness activities.

- Give everyone a manual communication board to experience using AAC.
- Invite an adult user of AAC to visit the class.
- Read Sharon Draper's "Out of My Mind" (third-grade reading level).
- Participate in AAC Awareness Month events.
 - ISAAC – a non-governmental organization with the World Health Organization
 - October – International AAC Awareness Month

Responding to AAC Communication

I didn't know you liked cars. What color is your favorite?

Hmm, are you telling me you want to talk about dinosaurs?

Wow, I've never seen you use that word before!

I don't see a bus right now. Did you see a bus earlier today?

Can you give me another word to help me understand what you want to tell me?

You said "go." Where would you like to go?

It looks like you have a lot to say!

I'm not quite sure what you mean. Can you tell me more?

That's an interesting word. Do you have something else you want to say about that?

DOs and DON'Ts of AAC

DO	DON'T
Use the AAC system yourself to communicate/model	Expect the AAC user to communicate without someone modeling how
Allow other forms of communication in addition to the AAC	Make students repeat themselves on their AAC device after clearly communicating using another mode (e.g., shaking their head for “no”)
Provide ample wait time	Interrupt student processing
Make AAC available at all times	Limit access to the AAC system
Presume competence	Demand prerequisite skills before providing opportunity to access AAC

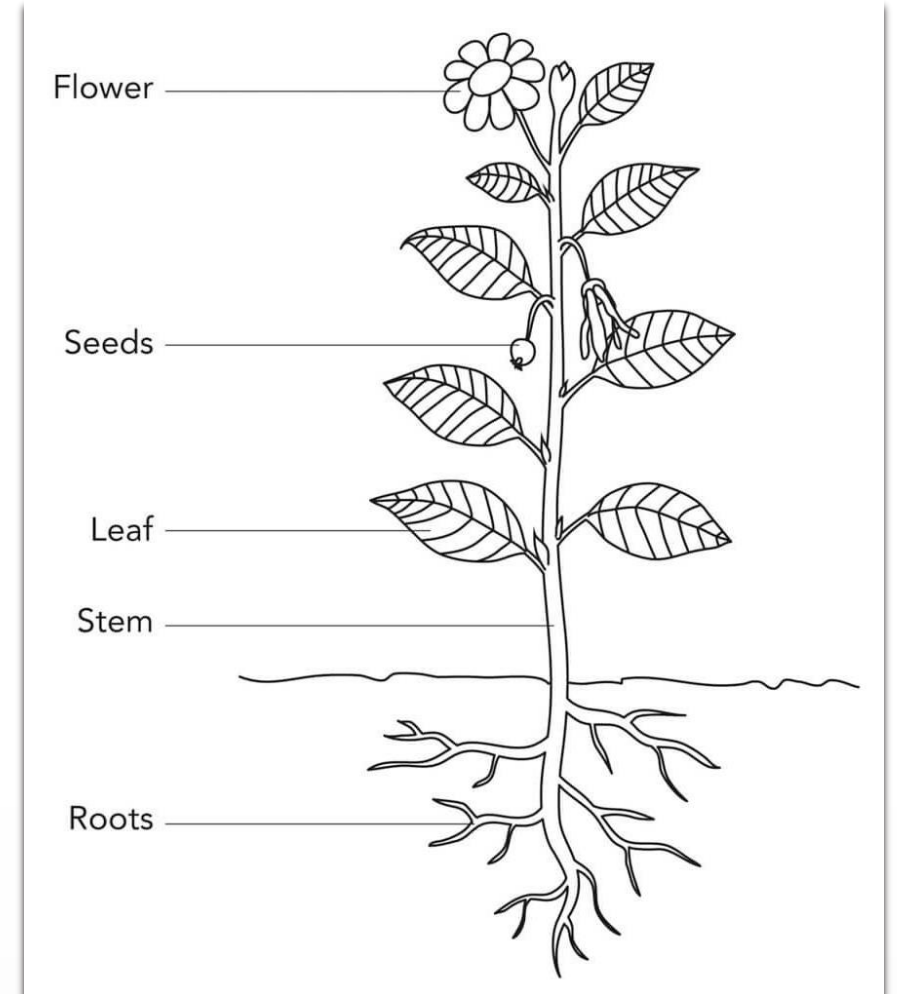
Common AAC Myths

Myth: In order to benefit from AAC, the student must:	Fact
Understand cause and effect	AAC can be used to teach cause and effect and communication at the same time.
Understand that a picture represents an object	AAC can be used to teach that a picture represents an object and communication at the same time.
Have good enough motor skills	A wide variety of available technology ensures that students with motor difficulties can still access AAC.
Understand enough language	We talk to children and use speech around them well before they are able to understand it or use it themselves. Similarly, we don't have to wait until a student understands language before we start exposing him to an AAC device or system.
Have enough interest in communicating	It is likely that the student doesn't yet understand the power of communication. For many students, spoken words are so difficult that verbal communication isn't even an option.

Lesson Preparation: Whole Class

The teacher will:

- Show and describe the different parts of the plant.
- Discuss the functions of the parts.



Lesson Preparation: AAC/Core User

The teacher will:

- Review the lesson through the lens of an AAC user.
 - Determine whether key words are in the student's AAC system (e.g., flower, leaves, roots, stem, photosynthesis).
 - Practice finding those key words in the student's AAC system.
 - Determine whether core words used to define the key words are in the student's AAC system.
 - Adjust the definitions based on available core words within the student's AAC system.

Lesson Comparison

All students will...	AAC/Core user will...
Grow plants in the classroom or school garden.	Participate in the plant growing experiment by directing others ("dig," "put in seed," "cover with ground," "water," etc.).
Describe the parts of the plant: flowers, stem, leaves, root.	Describe the parts of the plant using core words. Flower = <i>top, pretty part</i> Stem = <i>long, middle part</i> Leaves = <i>outside or side part</i> Root = <i>bottom part, under ground</i>
Discuss the functions of plant parts in the growing process. Flower = holds the seeds, which are used to make more plants Stem = support plant, carry water and food Leaves = photosynthesis Roots = absorb nutrients and water from the soil, support plant in ground	Describe the functions of the plant parts in the growing process using core words. Flower = <i>hold seed, more plants</i> Stem = <i>carry water, carry food</i> Leaves = <i>light into food</i> (photosynthesis) Roots = <i>take water, take food, hold ground</i>
Draw a picture of a plant and label the parts; answer application questions.	Direct someone to arrange cut out pictures of plant parts to make a correct arrangement; complete a modified multiple-choice worksheet.

AAC/Core User Success Story

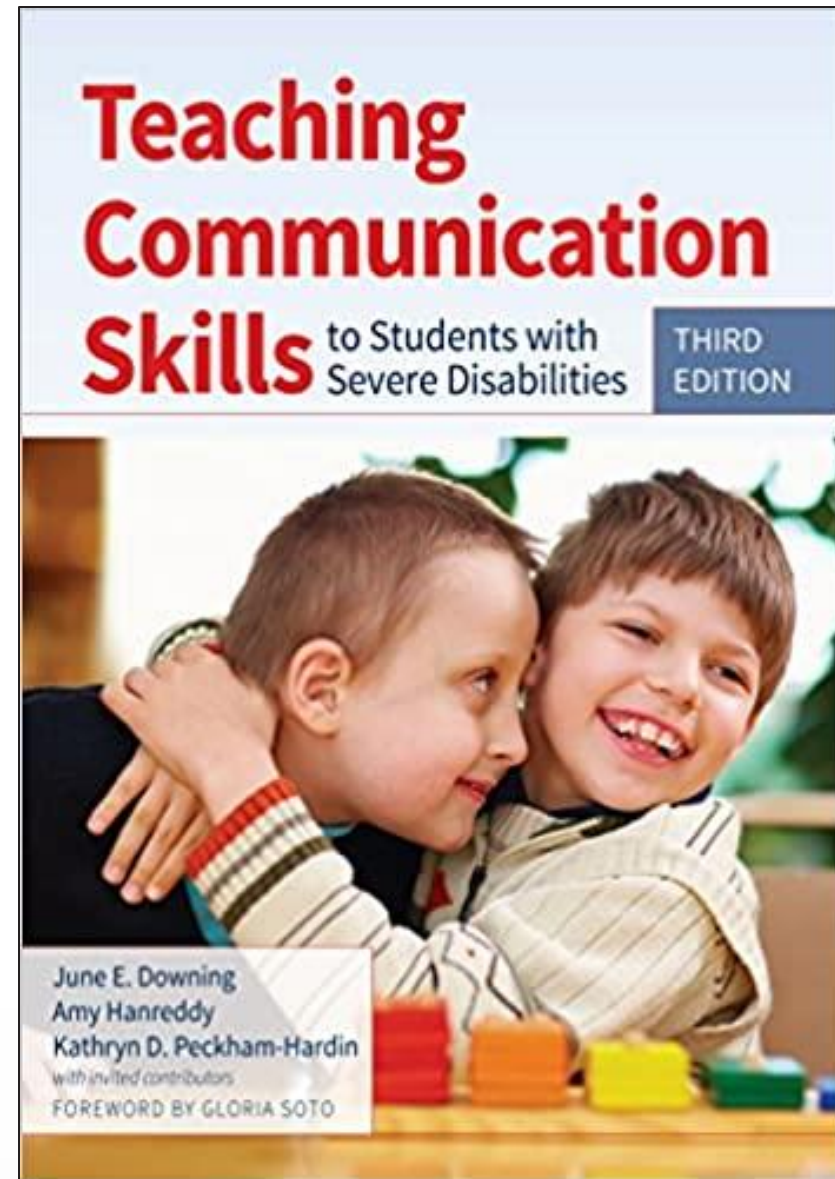
What is the job of the leaves?

- light into food (photosynthesis)

Why are plants important to us?

- food eat (food to eat)
- make clean nose (cleans the air)

Teaching Communication
Skills to Students with
Severe Disabilities,
Third Edition



AAC Resources

- PrAACticalAAC.org – Website with strategies, videos, and tools for implementing AAC
- [Fluent AAC](#) – Website with printable communication boards, guidance on teaching AAC, and activities for learning AAC
- [AAC Devices for Kids: What are They and How to Use Them](#) – Parent resource article

Common AAC Devices/Programs

- [LAMP Words for Life](#)
 - [LAMP Words for Life - Vocabulary Workbook](#)
- [Unity](#)
- [Proloquo2Go](#)
- [TouchChat](#)

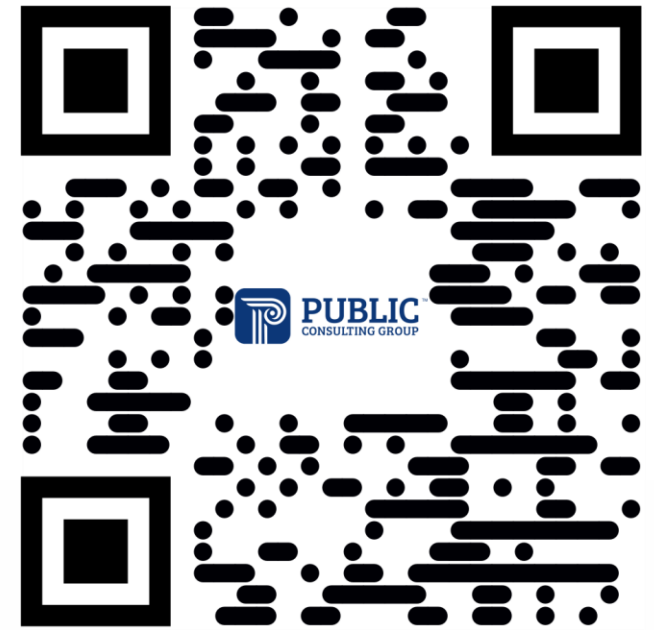
**Click on the links to access support and resources for each device/program.*

Wrap-Up and Next Steps

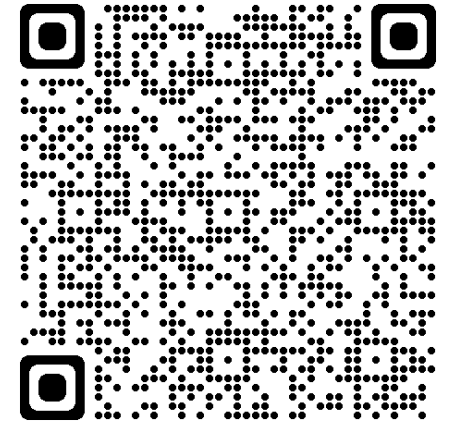
Exit Slip

Thank you for attending today's session! We value your feedback, please complete the following:

- MEGA Conference Evaluation, and
- Today's Exit Slip.



Future Session



- **Date:** Wednesday, September 13th
- **Session Topic:** Communication and Instruction Support of Students with Significant Disabilities
- **Time:** 8:30-3:30 p.m. CT
- **Location:** Montgomery
- **Power School Course 303455 | SES-PCG Onsite:**
Communication and Instruction Support of Students with Significant Disabilities