



# You Know What's Exciting?

## Tactile Connections to Build a Conversation.

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# Learning Objectives

- Participants will evaluate when students are ready for tactile communication symbols.
- Participants will compare the design and use of Tactile Connections with the Standardized Tactile Augmentive Communication System (STACS).
- Participants will discover practical applications to use tactile symbols to teach literacy skills to complex need learners.



# My experience with Tactile Connections and STACS:

- I currently use parts of the kit when working with students.
- I'm aware of the kit but feel a little intimidated knowing how to use it.
- I've seen pieces of the kit stored in a school closet.
- This is my first time learning about this APH product.



# How much time do you spend with your students who have significant cognitive disabilities?

- Daily, over four hours
- Daily, under four hours
- More than twice a week
- More than twice a month
- More than twice a quarter
- Consultation with others only
- Collaboration with others only
- I do not current work directly with students



# When Your Student is Ready



# Assessment Drives the Decision

- Teacher of the visually impaired
- Speech and language pathologist
- Classroom teacher
- Paraprofessional/Intervener
- Occupational therapist
- Physical therapist
- Teacher of the deaf/hard of hearing
- Orientation and mobility instructor
- Parent/caregiver(s)
- Student



# TVI's Responsibilities

- Share results of FVA, LMA, and clinical vision reports with team and implications for AAC implementation
- Guide the team in determining additional considerations for access to AAC including optical devices, positioning and seating, lighting and other environmental adaptations (e.g., highlighting a shelf in red tape for a student who has CVI)
- Provide the team with input on implementing AAC use to address skills across the areas of the Expanded Core Curriculum, and assist in developing routines and lesson plans in these compensatory areas
- Ensure that visual and tactile design considerations have been met in appropriately adapting AAC modes and access to modes, and promote ongoing evaluation of AAC implementation and adaptations





# Reflexive Actions

## Examples

- Body tension & relaxation
- Changes in breathing & heart rate
- Facial and visual reflexes (grimace, smile, squinting, blinking)

## Strategies

- Make yourself physically available
- Interpret what the child's behavior might mean
- Provide feedback to let the child know that you are responding to his/her action
- Use touch cues and name cues consistently



# Purposeful Actions

## Examples

- Moving toward or away from item, taking wanted item or throwing/dropping unwanted item
- Intentional facial expression not directed at a person (smile, frown)
- Self-injurious behaviors
- Sensory-seeking behaviors

## Strategies

- Joint attention to objects and activities
- Interpret the function of the behavior
- Involve yourself in the action & the action when child is involved in sensory-seeking behaviors
- Consistent use of touch cues, name cues



# Unconventional Communication Variations

## Examples

- Pulling hand or clothing
- Vocalizing towards a person
- Directed facial expression (to a person or item)

## Strategies

- Interpret the function of the unconventional communication
- Model conventional gestures and shape unconventional gestures
- Use hand-under-hand signing
- Use concrete symbols for anticipating activities



# Conventional Communication Variations

## Examples

- Pointing
- Shaking head yes/no
- Looking back/forth between person & wanted item
- Waving hi/bye

## Strategies

- Model increased number of conventional gestures in more activities
- Provide increased exposure to accessible language (sign, speech, AAC, print/Braille)
- Target specific meaningful, functional words that are throughout the day
- Use concrete symbols in a calendar system to plan and review the day



# Move to Concrete Symbols

- Tangible Symbols
- Object Cues
- Photos
- Drawings



# Abstract Symbols

## Examples

- Expressive or receptive use of single utterances
- Spoken word or sign
- Alternative & Augmentative Communication (AAC) systems
- Print or Braille

## Strategies

- Create a first words inventory and share with the team
- Model combinations of words many times (“more”+”drink”) in targeted activities
- Use concrete symbols in a calendar system to plan and review the day
- Provide opportunities to practice multiple times in an activity



# Combined Symbols

## Examples

- Two or more abstract symbols, words or signs produced together
- Examples: 'more drink', 'play finish'

## Strategies

- Model examples of combined symbols, in more activities and with more people
- Plan activities that provide opportunities to practice combinations
- Increase exposure to formalized language
- Create an updated vocabulary inventory to share with the team



# Formalized Language

## Examples

- Two or more abstract symbols that follows grammatical rules and syntax
  - Spoken Language
  - Sign Language

## Strategies

- Teach specific grammar, syntax, and other rules of language
- Provide access to fluent individuals, including peers
- Target higher language goals and integrate into literacy goals
- Provide constant access to language across environments





# Design of Tactile Communication Systems



# One Size Does Not Fit All

- Every student will need to have access to their own communication system, tailored to their specific needs.



# Does the student have any useful vision?

## No

- Consider the 3D Symbols
- 4 Inline Universal Core communication book using partner-assisted scanning with auditory presentation of the options.

## Yes

- Move to next question



# Is the student able to physically point?

## No

Can the student learn to reliably use eye gaze to make a selection?

- Yes
  - Use 4 corners eye gaze book
- No
  - 4 Inline Universal Core communication book using partner-assisted scanning with auditory presentation of the options

## Yes

What is the smallest target the student can point to?

- 1 inch square
- 2 inch square
- 3 inch square
- 4 inch square



# Tactile Connections



## Selecting Mounting Card

Yellow – Crown – People

Red – Barn – Place

Green – House – Action

Blue – Puzzle – Time

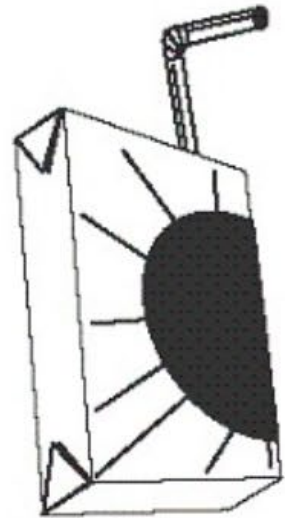
White – Bread – Object

Black – Rectangle – Expression

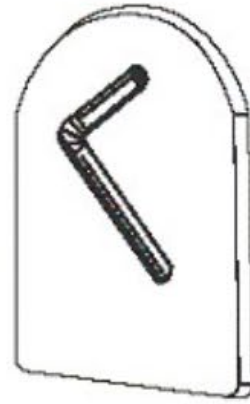
Gray – Scallop - Expansion



# Tactile Skills



Whole object



Piece of object  
mounted



Piece of object  
on card with label



Label only

# Selecting Symbol

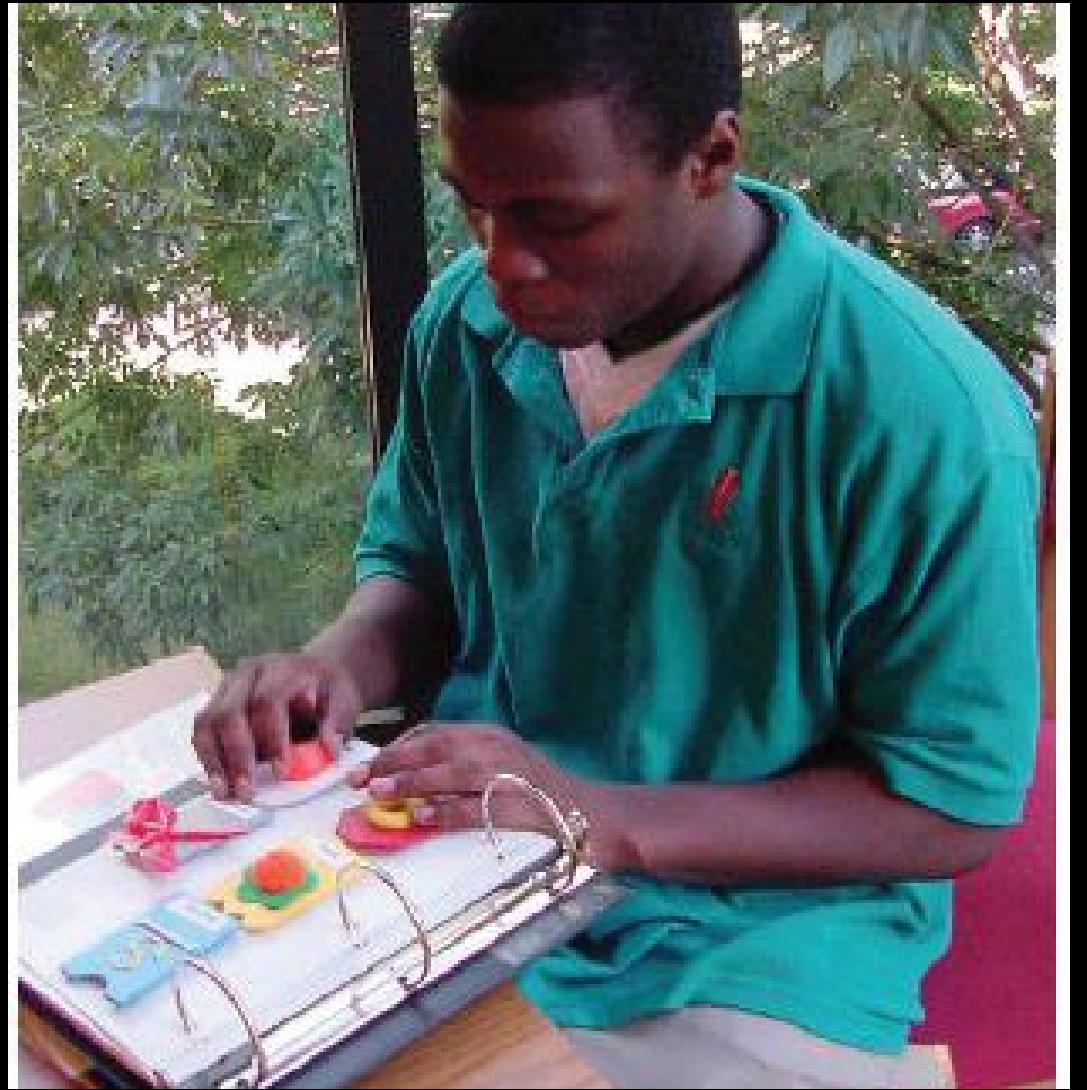
- Contact with the student
- Physical relationship to referent
- Consider “spoon-ness”
- Look for contrast
- Lean on the market



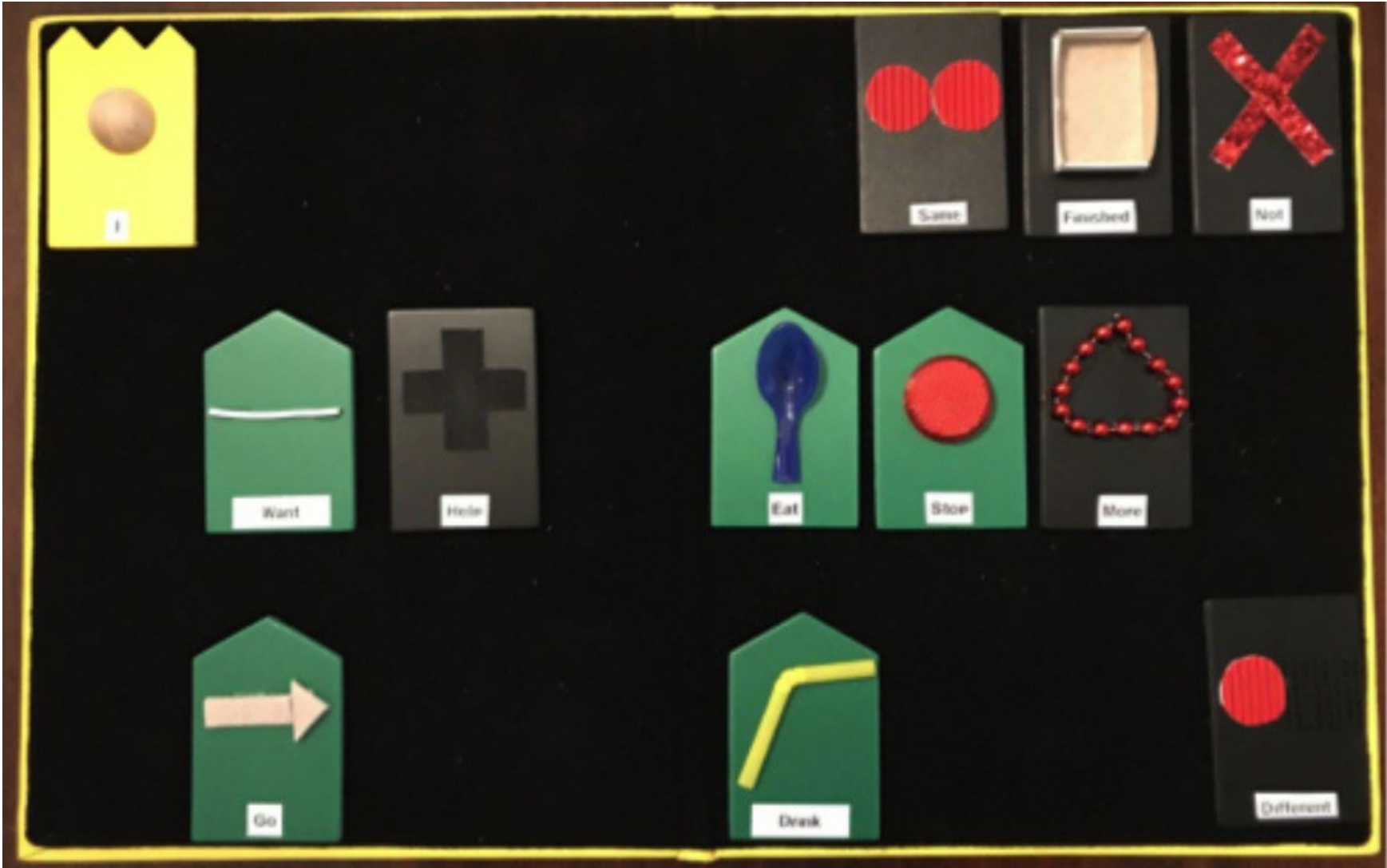


# Presenting Symbols

- All-In-One Board
- Small Work-Play Tray
- Large Work-Play Tray
- File folder
- Ringed binder
- Slant display board
- Tri-fold choice board
- Switches
- Dynamic displays



# Use Consistency with Location



# Mixing and Matching Systems



# Standardized Tactile Augmentive Communication System (STACS)



# Most Requested for the Study

- Dismissal
- Bathroom
- Gym
- Speech
- Music
- Classroom
- Literacy
- Circle Time
- Outside
- Occupational Therapy
- Physical Therapy
- Snack
- Computer
- Art
- Sensory
- Rest Time



# Most Frequently Used During Study

- Circle time
- Food
- Music
- Bathroom
- Drink
- Literacy
- Occupational therapy
- Gym
- Speech
- Physical therapy
- Art
- Snack



# Teacher and therapist perceptions

The educators and therapists concluded that many of their students did learn the meaning of the tangible symbols as part or all of their daily routine. The use of the symbols improved the students' behaviors by offering a purposeful way to communicate as well as providing for smoother transitions from one activity to another. In addition, the symbols improved other forms of communication and choice making for many of the students. All of the participants said they plan to use the symbols in their future classrooms. They suggested that the symbols be sent home to parents and that training for the parents be provided with the symbols labeled in the primary language of the family (Bruce et al., 2011).



# 25 Tactile Symbol Cards





# Make a Plan



# One Way to Getting Started

- Identify activities that involve movement (GO), student enjoyment (LIKE), and student refusal or displeasure (NOT).
- Each time one of these opportunities occurs, place the symbol for GO, LIKE, or NOT in the student's hand and say (or sign) the word. When the opportunity is complete, remove the symbol.



# Tactile Symbol Options



# Multiple Times a Day

- Symbols that are not used dozens of times each day, can't be learned.
- 3D symbols don't have incidental opportunities to learn the symbols just by looking for a known symbol on a communication board.
- Learning is dependent on us to provide opportunities to learn.



# Access to Words Always

- Consider how your student has access to their words
- Does the adult use these words to communicate?



# Build Into Daily Routines

- Transform daily routines into teaching and learning opportunities to support the expressive language of our students.

Where would you start?

- Arrivals and departures
- Mealtime
- Play and leisure



# Example – Transition to Resource Room

1. Signal for attention.
2. Give directions.
3. Student gets up.
4. Student waits at the door.
5. Give the GO signal.



# Introduce New Symbols When ...

- Adults in the environment are consistently using GO, LIKE, and NOT throughout the entire school day.
- The student demonstrating emergent understanding that the symbols GO, LIKE, and NOT carry meaning.





# Another Pathway to Tactile Communication

- Games played with Symbols and Meaning (SAM)
- Design a tactile card from an object used in the game
- Use tactile game card of favored game with placebo card
- Add another tactile game card of an additional game



# Teaching Literacy Skills



# Core Vocabulary for Literacy Interactions

- Like
- Want
- Get
- Go
- Not
- Look
- Turn
- Help
- Do
- Put
- Can
- Finished
- Good
- More
- All
- Some
- Who
- What
- Where
- When
- Why
- Stop
- I
- You



# Supporting a Shared Reading Experience

- Maximize interactions with the student or students on a page-by-page basis.
- Use the book as a context to support students in interacting with others about parts of the book the student finds interesting.
- Adults should make comments, connect the book to the students' lives, and carefully observe students to determine what attracts their attention or piques their interest in the book.
- Adults should demonstrate the use of the Universal Core to make comments.
- Adults should provide enough wait time that students have a chance to make their own comments or communicate with us in some other way.
- Adults should encourage communication by attributing meaning to each communication effort that is observed.



# Choosing Shared Reading Books

- Short books that can be read in a single activity
- Simple language to support students making meaningful connections with the text and illustrations
- Books your students find interesting



# Predictable Chart Writing



# Alphabet Knowledge & Phonological Awareness



Alphabet  
Song

- Explore letters
- Hear differences between words
- Count number of syllables
- Learn common sounds
- Identify common rhymes

# Independent Writing

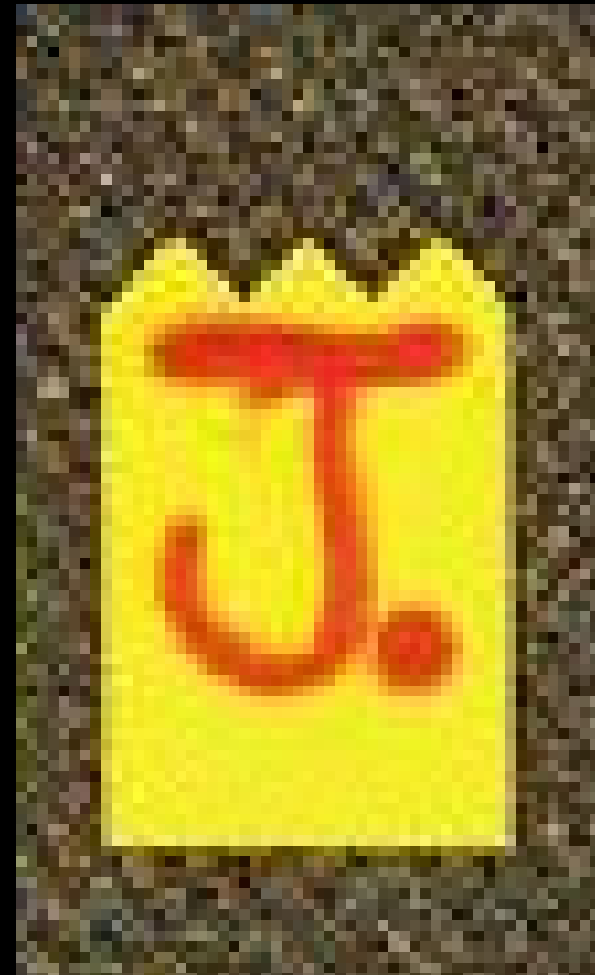
- Writing tool
- Presented letters
- Selecting topics
- Indicating choice





## Emergent Writer Example

- Teacher says:
  - You wrote about Elvis!
- Teacher points:
  - I LIKE
- Teacher says:
  - I like to ride horses but
- Teacher points:
  - I NOT ride Elvis.



# Independent Reading

- Reading collections
- Independent interaction
- Direct access to material
- Electronic book access



# Resources

- University of Kentucky: <https://www.hdilearning.org/topic/teaching-communication/>
- PrAACtical AAC: <https://practicalaac.org/practical/aac-in-secondary-school-defining-age-respectful/>
- Project Core: <http://www.project-core.com/>



# References and Resources

- NYDBC Products and Tools:  
<https://drive.google.com/drive/folders/1vZWrfcefXgW65MoFcXSKKdUfG6tu0NAKx>
- STACS Guidebook: <https://aph.nyc3.digitaloceanspaces.com/app/uploads/2021/03/25161339/STACS-CD-ROM-content.zip>
- Tactile Connections  
Guidebook: <https://sites.aph.org/files/manuals/Tactile-Connections-HTML.zip>



# Tactile Connections to Build a Conversation

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