Every child should know that we see them. We hear them. They matter to us.

Produced by: University of Kentucky, in partnership with the National Center State Collaborative (NCSC)
The contents of this product were developed under a grant from the Department of Education (PR/Award #:H373X100002, Project Officer, Susan.Weigert@Ed.gov). However, the contents do not necessarily represent the policy of the Department of Education and no assumption of endorsement by the Federal government should be made.
NCSC Communication Tool Kit Workbook

Introduction

The Communication Toolkit is a series of modules which make up the third course in the NCSC Professional Development Module series. This course consists of eight modules. To aid with accessibility a pdf version of each module is available. In addition, the notes pane in presenter will display the narration in text.

Purpose of the Workbook

The workbook is designed to be used as a note-taking guide when viewing the modules. The workbook may be printed in sections, by module, or as a whole document. The table of contents specifies the page numbers that should be printed for each module. If printing in black and white, it is recommended that the gray scale setting be used for best print quality.

The workbook contains references and a glossary. It also contains handouts for use while viewing the modules or for future implementation of communication strategies.

Tips for Viewing the Modules

The communication modules are posted in Adobe Presenter format.

Instructions for viewing Adobe Presenter files are available on the NCSC wiki at https://wiki.ncscpartners.org/index.php/Adobe_Presenter

The Communication Tool Kit modules contain quiz questions:

- Quizzes may be in one of the following formats:
  - Multiple Choice
  - True/False
  - Fill in the Blank
- To answer a quiz question, you might:
  - Click the circle next to your answer choice(s) and hit submit.
  - Type your answer in the blank(s) and click submit.
# Table of Contents

Call to Action .......................... 4-5  
Module 1 ................................ 6-8  
Module 2 ................................ 9-11  
Module 3 ................................ 12-14 
Module 4 ................................ 15-18 
Module 5 ................................ 19-23 
Module 6 ................................ 24-26 
Module 7 ................................ 27-28 
References and Resources .......... 30-32 
Glossary .................................. 33-34 
Handouts .................................. 35-41 
Acknowledgements ..................... 42
Call to Action

Expressive Communication Definition:
What a student can “say”, “sign”, or somehow indicate a message or intent.

Receptive Communication Definition:
What the student understands.

Expressive Communication Across Grade Bands

Data on communication status indicates little or no change in percent of student symbolic communication from 3rd grade to high school.
Communication Intervention Works

20 Years of Literature

116 Studies

98% report improved stuttering results

Focus

Reflect ↔ Act
Module 1: Identifying Communication

Learning Outcomes
You will be able to:

- Define communication and its components
- Discuss the communication partner’s role in making a student’s communication successful
- Practice identifying unconventional forms of student communication

Examples of communicative intents are:

- ____________________
- Refusing/Protesting
- ____________________
- Commenting
- ____________________

Examples of Mode/Form

<table>
<thead>
<tr>
<th>Conventional</th>
<th>Unconventional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Print</td>
<td>Vocal Output</td>
</tr>
<tr>
<td>Sign</td>
<td>Gestures</td>
</tr>
<tr>
<td>Speech</td>
<td>Facial Expressions</td>
</tr>
<tr>
<td>Graphic Symbols</td>
<td>Eye Contact</td>
</tr>
<tr>
<td></td>
<td>Body Movement</td>
</tr>
</tbody>
</table>

Notes:
Goal of this module is to increase our ability to identify communication by:

- Learning to recognize behavior as ___________________.
- Learning to identify the student’s communicative ____________.
- Learning to identify the various _________ the student may use for communication.

Guided Practice

Simon

<table>
<thead>
<tr>
<th>Content-Intent-Function</th>
<th>Mode or Form</th>
<th>Desired Response???</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comment</td>
<td>Smiles</td>
<td>Yes</td>
</tr>
<tr>
<td>Comment</td>
<td>Vocalizes</td>
<td>Yes</td>
</tr>
<tr>
<td>Request</td>
<td>Puts hands out</td>
<td>Yes</td>
</tr>
<tr>
<td>Respond</td>
<td>Eye Pointing</td>
<td>Yes</td>
</tr>
<tr>
<td>Request</td>
<td>Eye Pointing</td>
<td>Yes</td>
</tr>
<tr>
<td>Request</td>
<td>Gesture similar to sign for “more”</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Notes:

Steven

Practice: Fill in the mode/form of Steven’s communication as you watch the video.

<table>
<thead>
<tr>
<th>Content-Intent-Function</th>
<th>Mode or Form</th>
<th>Desired Response???</th>
</tr>
</thead>
<tbody>
<tr>
<td>Request</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Request</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Request</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Comment: Frustration</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Request</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Request</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
A blank table has been provided in the handout section for use with our students.

**Let’s Review**

- Every student communicates
- Communication requires an intent, a form, and listener comprehension
- Unconventional forms of communication can pose a challenge for successful communication
- We must learn to identify students’ communicative attempts regardless of the form or mode they currently use

**Things to Remember:**

1. __________________________________________
   __________________________________________
   __________________________________________

2. __________________________________________
   __________________________________________
   __________________________________________

3. __________________________________________
   __________________________________________
Module 2: Considering Sensory and Motor Factors

Learning Outcomes
You will be able to:

• Identify potential motor and sensory factors
• Consider the impact of each factor on communication
• Discuss the next steps to take to implement an effective plan for developing necessary communication skills

Impact of Motor Factors
List related specialists for students with motor challenges:

•
•
•
List related specialists for students with hearing impairments:

- 
- 
- 

List related specialists for students with vision impairments:

- 
- 

List related specialists for students with dual sensory impairment:

- 
- 
- 
- 

List related specialists for students with sensory processing disorder:

- 
- 

Let’s Review!

When considering sensory and motor factors we must:

- Identify potential motor and sensory factors
- Consider the impact of each factor on communication and any further steps that should be taken.
Module 3: Selecting Communication Targets

Learning Outcomes
You will be able to:
- Differentiate expressive and receptive language
- Identify expressive and receptive language targets
- Identify possible expressive modes
- Select a tangible symbolic representation
- Consider opportunities to teach the targets

What a student understands is ________________________.

____________________ encompasses the many ways of conveying a message.
**Basic Expressive Targets**
1. Initiate a request: Attention, objects, actions, choices
   Ex: “Help Please”
2. Refuse: Objects, actions, choices
   Ex: ______________________________
3. Express feelings, preferences, comment, compliment, or answering
   Ex: ______________________________
4. Select from offered choices
   Ex: ______________________________
5. Request information: Events, people
   Ex: ______________________________

**Basic Receptive Targets**
1. Identify objects, actions, and choices
   Ex: ______________________________
2. Select answers after reading or listening
   Ex: ______________________________
3. Follow directions
   Ex: ______________________________

**Expressing a Message**
- Request initial expression
- Communicate
- Select choices
- Answer questions
- Request attention
- Select options
- Verbal model

**Matching the Message with a Symbolic Representation**
- Photograph
- Picture symbol
- Tactile graphic
- Tactile representation
- Tactile object

**Total Communication Notes:**

**Notes:**
Let's Review!

In this module, we have learned that it is important to
- Differentiate expressive and receptive language as important components of communication
- Identify basic expressive and receptive language targets
- Use multiple modes within a total communication approach
- Select tangible symbols to promote mutual understanding of targets
- Create opportunities and select strategies to practice the targets
Module 4: Selecting AAC

Learning Outcomes
You will be able to:
- Provide a definition of AAC
- Explain why AAC may be selected to support a student’s communication
- Discuss the characteristics of individuals who are candidates for the use of AAC
- Identify various forms of AAC
- Demonstrate how AAC can be used with students with significant disabilities

Definition of AAC:
Augmentative Alternative Communication is a form of communication used when an individual is unable to produce intelligible oral speech.

Augmentative: a form of communication to _____________ or _____________ existing oral speech

Alternative: a form of communication used by individuals _____________ to produce oral speech

Who is a candidate for AAC?
Anyone who do not use intelligible oral speech regardless of...
- 
- 
-
Accomplished by actually touching or pointing to the selected item.

Presents one choice at a time with the student indicating when the desired choice is presented.

Representations

- Real objects
- Photos
- Iconic Pictures
- Line Drawings
- Print
- Tactile Symbols

Notes:
Forms

Static: the symbols remain in the same location and same order

Dynamic: the display changes depending on the student's selection

Organization

Grid: the symbols are arranged in rows and columns

Visual Scene Display: uses a picture of a common location or event

Type of Output

Visual

Auditory

Notes:
Let's Review!

In considering AAC for our students, it is important to determine

- If the student is a candidate for AAC
- How AAC will be used
- What form the AAC should take
- How to implement AAC
Module 5: Teaching Communication

Learning Outcomes
You will be able to:
- Promote achievement for students with significant cognitive disabilities by utilizing six evidence-based practices

Teaching Communication Requires

High levels of Engagement

Ways to encourage high levels of engagement:
- _________________
- Wake up—Alert!
- Authentic Communication

Notes:
Remember: Keep communication authentic!

Frequent Opportunities to Respond
Improving Communication

1. Acknowledge _______________ EVERY TIME
2. Respond as if _______________ EVERY TIME
3. Honor __________ every possible opportunity

Using a communication target activity __________ can assist the team in determining which targets can be taught and which mode will be selected based on the type of target.

Systematic Presentation
Systematic Presentation

Prompt
Demonstrate/Model

Good Morning
Encourage me to 
say “Good Morning”

Task Direction & Wait
Can you use a button to say “Good Morning”?

WAIT

Assess

Student with 
Adequate and 
Provide an additional 
Prompt
Student includes 
Putting the button 
Adequate and 
Prompt
Provide a model with 
No model

Notes:

Success

Ensure Communication Success

Make communication easy

Model a variety of communication forms

Acknowledge a variety of communication forms
Let’s Review!

Promoting Achievement for students with significant cognitive disabilities requires the utilization of six evidence-based practices, as described by McDonnell. These practices include:

- Ensuring high levels of student engagement or making sure students are interested in what they are learning and want to talk about it.
- Providing frequent opportunities for students to communicate.
- Using systematic procedures to teach communication. This has the advantage of allowing the team to problem solve when the student experiences difficulties.
- Facilitating success and making sure the student can demonstrate the skill by removing barriers and troubleshooting difficult steps or task sequences.
- Providing immediate and specific feedback about student response.
- Monitoring progress through the ongoing analysis of data. This is as essential as teaching itself for promoting achievement.
Module 6: Embedding Communication

Learning Outcomes
You will be able to:

- Recognize where the components of literacy are used within and throughout instruction
- Understand the process for embedding communication into academic instruction

The Language Wheel

Adapted from Kempton, S.R. (2014)

Communicate
What we communicate expressively, we can write
What we think (receptive) we can express

Read
What we write, we can read

Write

Communication and Academic Instruction

Identify the Content
General Curriculum
Academic Goals
Communication Targets

Create Supports

Implement Instruction

Academic
Background Knowledge
Opportunities to Practice
Identify Key Vocabulary
Communication

Academic

Summative Assessments
Multiple Means of Expression
Data Collection

Demonstrate Performance

Notes:
Creating Supports

Develop a strategy and/or system for:

**Communication**
- Mode(s)
- Symbol System
- AAC

**Reading**
- Multiple Means of Representation
- Symbol System
- Modify Text
- Assistive Technology

**Writing**
- Multiple Means of Expression
- Multiple Means of Representation
- Symbol System
- Assistive Technology

**Determine the Symbol System**
- Printed Words
- Graphics paired with written words
- Tactile representations paired with spoken word

**Modify the Text**
- Introduce the characters and settings that will be used throughout the passage.
- Include symbolic representations of the key elements, including events, to highlight important features and vocabulary.

Notes:
Here is an example of how pictures can be used to support student understanding.

Implementing Instruction:

1) Build a background knowledge: Introduce concepts and model symbol use
2) Use students core vocabulary to make connections to content vocabulary and concepts.
3) Read text and model communication
4) Create opportunities to practice
5) Make student life connection to the text
6) Note taking strategies
7) Discuss the text
8) Write a summary

Let’s Review!

When embedding communication into the curriculum, it is important to:

- Identify the content
- Create supports
- Implement instruction
- Demonstrate performance

Notes to myself:
Module 7: Monitoring Progress

Learning Outcomes
You will be able to:

- Identify key features of the monitoring progress cycle
- Analyze progress data to make a decision
- Implement the decision in instruction
- Collect instruction/assessment data
- Chart the data progress

---

Data Point: _______ _______ - the number of correct responses or percent of correct responses.

Data Line: _______ _______ - line - number of sessions or days indicated by multiple data points.

Data Trend: _______ _______ - a line that bisects the data points and indicates whether the day are increasing or decreasing.
Visual Analysis of Data

Flat Trend Line

Upward Trend Line with Variable Data

Decreasing Trend Lines with Variable Data

Acknowledge Communication

Student engages in communicative behavior

Vocalize student’s assumed intent

Is the request reasonable and possible?

YES

Honor the communication

NO

Provide alternative

Data Decision: Upward trend reaching criterion — move to maintenance and choose a new skill.

Data Decision: Make the task easier.

Data decision: Increase motivation and opportunities to practice.

Data decision: Increase motivation, provide opportunities, simplify.

(Beukelman & Mirenda, 2013; Siegel & Cress, 2002; Carter & Iacono, 2002)
**Systematic Presentation**

**Helpful hint: Use a script**

Today we will use a device to comment. I will show you how I use a button to talk. This is how I use a button to talk. Can you show me how to use a button to talk?

**Tips for collecting and modifying data**
- Determine opportunities to practice
- Determine when to teach and when to assess.
- Create a data collection sheet
- Document which devices and strategies the child uses and which ones work and didn’t work.

**Let’s Review!**

Important steps in monitoring progress include:
- Identifying key features of the monitoring progress cycle.
- Analyzing progress data to make a decision about instruction.
- Implementing the data decision
- Collecting the instruction/assessment data
- Charting the data progress
NCSC Reference and Resource List


Glossary

Adapted text: reducing the complexity or form of the text while maintaining the main idea and essential details

Aided language stimulation: systematic procedure that models the use of pictures or an AAC device by actually using the pictures or device while communicating

Alternative communication: a form of communication used by individuals unable to produce oral speech

Augmentative communication: a form of communication to supplement or clarify existing oral speech

Authentic communication: communicating meaningful content in genuine interactions

Conventional communication: commonly used and easily understood modes of communication

Intent: an individual’s reason for communicating

Data line: number of sessions or days indicated by multiple data points

Data point: number of correct responses, or percent of correct responses, divided by the number of opportunities given to a student in a session

Data trend: line that bisects the data points and indicates whether data is increasing or decreasing

Direct selection: a method of access for a communication system, accomplished by touching or pointing to the selected item or symbol

Dynamic display: a display system on an electronic communication device that changes depending on the student’s selection. For example, when a student selects the symbol for ‘math’ on their home screen, the display changes to present vocabulary associated with ‘math’.

Expressive communication: conveying a message, regardless of the means

Grid display: an arrangement of symbols on the communication device utilizing lines and columns

High tech communication device: sophisticated, computer-based communication devices which allow the user to generate their own messages and have the capacity for producing synthesized speech

Intervener: a paraprofessional with specialized skills and training who provides support to students who are deafblind

Listener comprehension: a person’s ability to understand the meaning of words or symbols that are used in communication

Low tech communication device: communication devices that use simple electronics, are battery operated, and are typically limited to preprogrammed messages

Mode: the specific behaviors used by an individual to communicate
**No tech communication device:** simple communication devices that use no electronics

**Probe:** an assessment technique used to determine the student’s level of independence with supports (e.g. AAC) but without instructional prompts

**Unconventional or idiosyncratic communication:** modes of communication that are unique to an individual

**Receptive communication:** understanding a message, regardless of the means

**Scanning:** a method of access for a communication device which presents one choice at a time, with the student indicating when the desired choice is presented

**Shared reference:** also known as “joint attention”, two individuals sharing a referent

**Static display:** a display system on a communication device where all the symbols remain the in same location and in the same order

**Student preferences:** people or things that elicit an alert or response when presented or available

**Symbolic representation:** expressing mental processes and ideas using conventional representations such as spoken words, print, or sign

**Systematic presentation:** teaching procedure that allows us to control or manipulate the presentation and response consequences

**Visual scene display:** a display system on a communication device with messages programmed under ‘hotspots’ on a picture. The hotspots are people, items or locations on the picture that, when touched, activate a preprogrammed message.
## Communication Observation Form

<table>
<thead>
<tr>
<th>Content-Intent-Function</th>
<th>Mode or Form</th>
<th>Desired Response</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Kleinert, J., Kearns, J., & Page, J. (2013). TAALC Project, Kentucky Dept. of Education and the University of Kentucky
Matrix

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Student's communication targets (academic, social, etc.)**

**Curriculum**

**Schedule of activities**
<table>
<thead>
<tr>
<th>Requirement</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Request and receive another person's attention and interaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Request ordered materials</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Receive opportunities for objects and information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Express personal preferences and feelings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Request designated objects, events, and people</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Receive undesignated objects, events, or events</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comments: Does My Student...
<table>
<thead>
<tr>
<th>Comments</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

**Questions for meeting the communication needs of persons with severe disabilities (3/2012)**

1. Does my student have clear, meaningful and understandable language?
2. Is my student spoken to directly and not spoken for or talked about in his presence?
3. Is my student spoken to with respect and courtesy?
4. Have AAC and other AT devices that function properly all the time?
5. Have access to AAC augumentive and alternative communication (AAC) and

Extra questions if not the responder?

- Receive information to improve communication skills
- Environments about changes in routine and

**Does My Student...** (continued)
<table>
<thead>
<tr>
<th>Behavior</th>
<th>Activity</th>
<th>Student Responses</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Dates:</td>
</tr>
<tr>
<td>Summary</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Summary</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Summary</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Summary</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Codes: (+)= Correct (-)=Incorrect (5)=Independent (4)=Verbal Prompt (3)= Model Prompt (2) Physical Prompt (1)= No Response after physical prompt</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Charting the Data

The Student will ________________

The Student will ________________

The Student will ________________

The Student will ________________
<table>
<thead>
<tr>
<th>Data Pattern</th>
<th>Interpretation</th>
<th>Suggested Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correct responses increasing</td>
<td>Program is working</td>
<td>Continue current program</td>
</tr>
<tr>
<td>Errors decreasing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correct responses 20%-50% correct</td>
<td>Student can perform some, but not all of the skill</td>
<td>Reduce the number of steps or complexity of concept; add examples; teach difficult steps</td>
</tr>
<tr>
<td>Correct responses at or near 0%</td>
<td>Task is too difficult</td>
<td>Teach less complex skill or pre-requisite skill</td>
</tr>
<tr>
<td>High error rates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correct rate highly variable</td>
<td>Compliance problems</td>
<td>Consider motivation and attention strategies</td>
</tr>
<tr>
<td>Correct rate drops</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correct responses stalled at 80%</td>
<td>Student ready for fluency building</td>
<td>Manipulate consequences and add practice time</td>
</tr>
<tr>
<td>No increase in rate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Criterion achieved</td>
<td>Successful</td>
<td>Maintenance, generalization, new task</td>
</tr>
</tbody>
</table>

(Wolery et. al., 1988)
Acknowledgements

We would like to acknowledge the following graduate students in the Division of Communication Sciences and Disorders at the University of Kentucky for their able assistance in the fabrication and design of this workbook. Their attention to detail and creativity were positive contributions to this project. They are:

Sarah Francis Meyer, B.H.S
Laken Mitchell, B.H.S.
Lindsay Kroes, B.H.S.
Sarah Blakeman, B.H.S.