

# AAC in the Classroom for Students with Significant Disabilities

## Session 2: Implementation & Data Collection on LoTech AAC & Apps

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# **A 3 Part Series:**

## **AAC in the Classroom for Students with Significant Disabilities**

Session 1 – A Progression Strategy From  
BIGmack<sup>®</sup> to SoundingBoard and Beyond

**Session 2** – Implementation & Data Collection  
on LoTech AAC & Apps

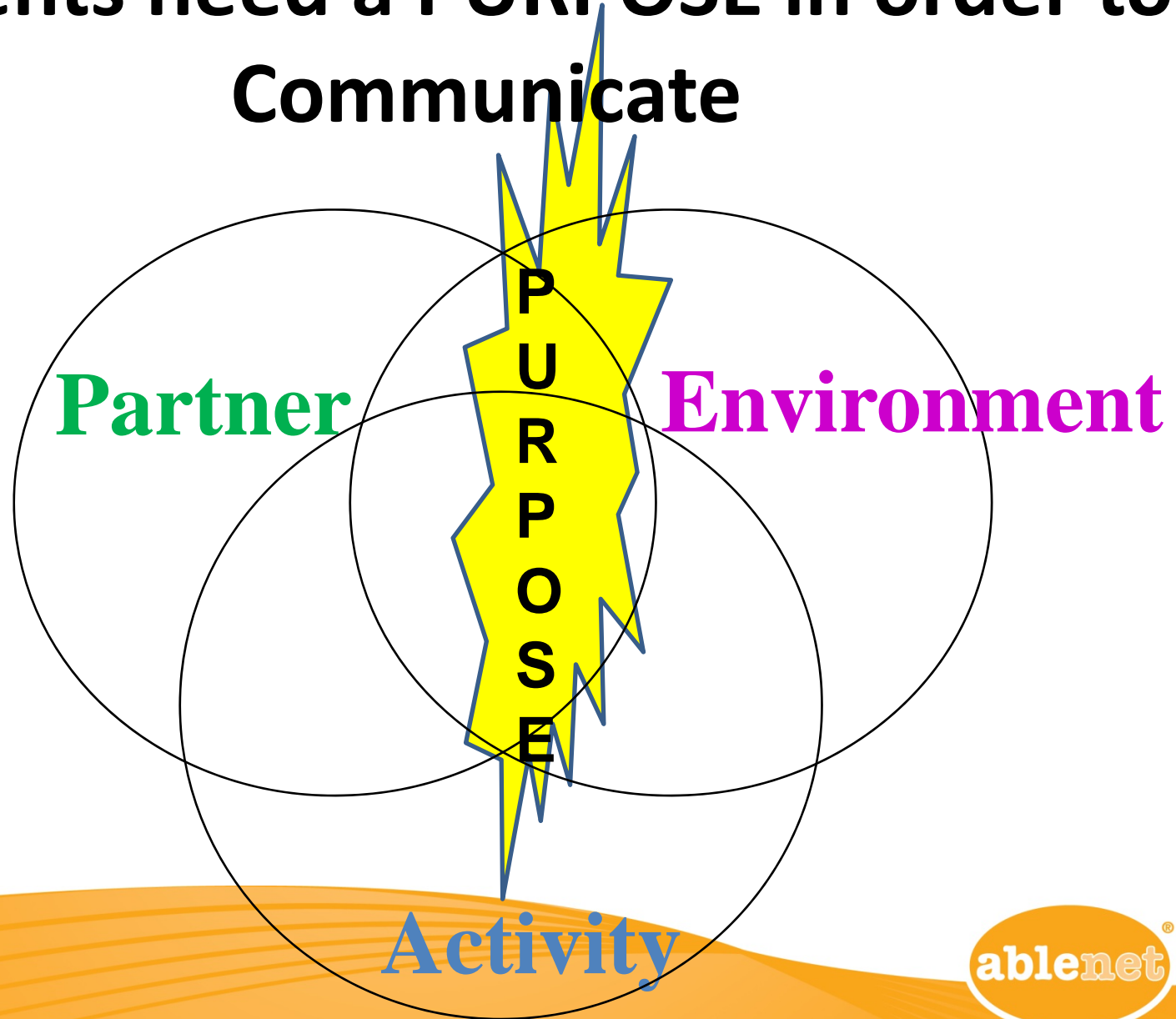
**Session 3** – Analyzing Data from LoTech AAC &  
Apps

# **CEP: Communication Enhancement Process**

- **Year Long Classroom Intervention Process**
- **Focus is on students who communicate with non-symbolic (behavioral) modalities**
- **To develop more intentional & symbolic communication**
- **In order to communicate with a wider range of communication partners**
- **Communicate more independently, increase # of communication functions & unprompted interactions**



# Students need a PURPOSE in order to Communicate



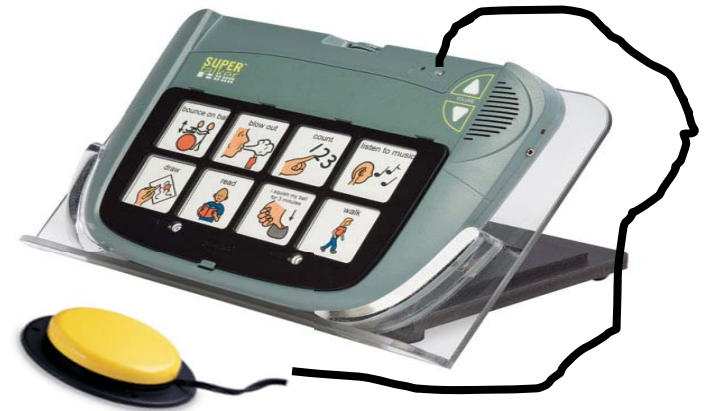
# Categories of Expressive Communication Functions (birth – 2 years)

- Refuse
- Obtain
- Social
- Information

The screenshot shows the website for 'THE COMMUNICATION MATRIX'. The page features a navigation bar with 'Language: English' and links for 'Login', 'Register', 'Group Management', and 'Webinar'. Below the navigation bar, the title 'THE COMMUNICATION MATRIX' is displayed in a stylized font, followed by a secondary navigation bar with links for 'Data Entry', 'Contact', 'FAQ', 'Who's using this?', 'New Translations', 'About', 'Results', and 'Custom Report'. The main content area is titled 'Communication Assessment for Parents & Professionals' and includes a description: 'An easy to use assessment instrument designed for individuals of all ages who function at the earliest stages of communication and who use any form of communication.' A photograph of a young child is shown with a red starburst graphic that says 'FREE'. To the right, a sample communication matrix grid is displayed, showing various communication functions and their status (Surpassed, Not Used, Emerging, Mastered). A key below the grid explains the color coding: Surpassed (white), Not Used (grey), Emerging (yellow), and Mastered (blue). A link at the bottom of the page says 'Download the entire handbook.'

# Some AAC Tools Used in CEP Activities

- Dedicated Tools
- Apps



# Remember...



**Theory never  
becomes reality  
→ without  
practice.**



# 3 Types of Activities



1. Preference assessment
2. Establishing Intentional Communication Behaviors
3. Expand the repertoire of communication behaviors & intents



# Moving forward with your Student

- **What type of activity will you be working on with your student?**
- **Communicative Functions**
  - Which functions do you need to reinforce?
  - Which functions do you need to introduce next?
    - Reinstate – Attention – Choice making
- **What symbol system/representation are you using/can you try?**

# The CEP Script

Oakland Schools - CEP: Communication Enhancement Project - COMMUNICATION SCRIPT

**FIRST THINGS FIRST SCRIPT** (Simple script adapted from Design2Learn.com)

Script ID#: \_\_\_\_\_ Project staff only \_\_\_\_\_ District: \_\_\_\_\_ Age Range (circle) Birth-2, 3-5, 6-8, 9-12, 13-26

Activity Topic (circle) academic, community, food, job, leisure, PE, self help, sensory, social, other \_\_\_\_\_ Communication Purpose (circle) preference assessment, refuse, obtain, gain attention, restate, make choice, social, get information, other \_\_\_\_\_

Sub Topic: \_\_\_\_\_ Criteria (Measurable): \_\_\_\_\_

Objective: \_\_\_\_\_

ENVIRONMENT	TEACHING ROUTINE					
	Setting, Partner, Position	Staff Setup of Activity		Student Target Behavior	Consequence given by staff	
					Student	Staff
Setting:	Step #1 Staff cue (verbal, visual, sensory):	Staff assistance (physical):	What student communicates:	If student does:	Then staff:	
Materials:				If student doesn't	Then staff:	
Positioning of AAC device:			How student communicates:	If student doesn't	Then staff:	
Positioning of student:				If student doesn't	Then staff:	
Position of Communication Partner:				If student doesn't	Then staff:	
Position of Communication Facilitator:				If student doesn't	Then staff:	

Updated Script Form for Communication Enhancement Project 2012 © Oakland Schools. Adapted from [www.Design2Learn.com](http://www.Design2Learn.com)



# Prompting Hierarchies

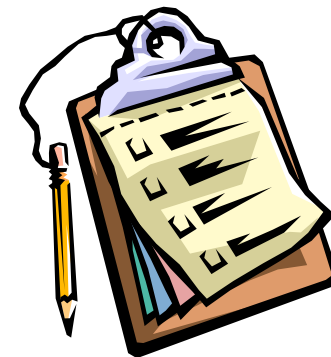
## Most-to-Least Prompting Hierarchy

- When teaching a new skill
- Systematic fading
- Steps:
  - Full Physical
  - Partial Physical
  - Modeling
  - Gesture
  - Verbal
  - Independent (natural environmental cue)

## Least-to-Most Prompting Hierarchy

- For mastering a skill to independent use
- Fading built-in
- Steps:
  - Independent (natural environmental cue)
  - Verbal cue
  - Gesture cue
  - Model
  - Partial physical
  - Full physical assistance

# Data Collection Connected to the Type of Activity



## Preference Assessment

## With a Prompt Hierarchy

Student: \_\_\_\_\_

Function targeted: \_\_\_\_\_

Date: \_\_\_\_\_

Items	1	2	3	4	5	6	7	8	9	10	%
Protocol	Scoring System					Session Total %					

CEP DATA COLLECTION CHARTING  
For reinforcing learned communication intents/behaviors  
PROMPT HIERARCHY

Student: \_\_\_\_\_ Instructor: \_\_\_\_\_

Objective(s): 1. \_\_\_\_\_ 2. \_\_\_\_\_

Criteria: \_\_\_\_\_

Materials: \_\_\_\_\_

Date	Student Response	Facilitator Prompting Sequence >>>>>			Model	Partial Physical	Full Physical
		Independent Natural Cue	Verbal	Gesture			

# Some Examples

- Remember
  - This is someone else's classroom
  - A student that you don't know



# Instructional Strategies for Teaching Communication

## Preference Assessment

1. **Present an array of objects as trial**
  - For the student with intentional “easy to read” behavior
2. **Engage in different activity choices**
  - For the student who is “difficult to read”
3. **Highly structured sensory preference probe**
  - For the student with questionable intentionality

Activity



# Example Script

## Preference Assessment

Oakland Schools - CEP: Communication Enhancement Project - COMMUNICATION SCRIPT

THINGS I WANT (modified from Design4Learn.com)

Script ID#: For office use only      District: insert district      Date: 9/24/2013

Student Print name: EXAMPLE 1      Age Range: insert age

Activity Topic: Leisure      Communication Purpose: Preference Assessment

Sub Topic: Preference Assessment      Criteria (Measurable): Daily, once a day, 9 out of 10 opportunities within 30 seconds

**Objective:** Student will communicate a preference by touching/gripping/reaching towards the item when given a choice of 2 items.

ENVIRONMENT	TEACHING ROUTINE			Consequence given by staff	
	Setting, Partner, Position	Staff Set-up of Activity	Student Target Behavior	Student	Staff
<b>Setting:</b> Classroom  <b>Materials:</b> age appropriate set of 10 toys, sensory items, books  <b>Positioning of AAC device:</b> out of student's reach, to be activated by staff after selection  <b>Positioning of student:</b> 1) at table, 2) on floor, 3) in stroller  <b>Position of Communication Partner:</b> 1) beside him, 2) behind him, 3) in front of him  <b>Position of Communication Facilitator:</b> may be needed when he is on floor	<b>Staff cues (verbal, visual):</b>  Present 2 items visually (hold steady) and say "Student, which one do you want?"	<b>Staff assistance (physical):</b>  If the student is on the floor, sit behind him to help maintain steadiness. There may be a need for a 2 <sup>nd</sup> staff member to present the items from the front.	<b>What student communicates:</b> "I want that one"  <b>How student communicates:</b> touching/gripping/reaching towards one item	<b>If student does:</b> touching/gripping/reaching towards the item  <b>If student doesn't:</b> touching/gripping/reaching towards the item	<b>Then staff:</b> 1) Activates communication device "I want that" 2) records choice 3) If student plays with item for over 15 seconds the staff will say "Student, look the ____" 4) After 30 seconds, remove item & represent 2 new items  <b>Then staff:</b> 1) records non-choice 2) presents 2 new items

Updated Script Form for Communication Enhancement Project \*2013 \*Oakland Schools \*modified from [www.Design4Learn.com](http://www.Design4Learn.com)

# Data Collection Charting

For students that you are doing a preference assessment or teaching a communication intent/behavior

- Data Collection through Daily Performance Data
- (p.15, 16, 39)

Student: \_\_\_\_\_

Function targeted: \_\_\_\_\_

Date:	1	2	3	4	5	6	7	8	9	10	%
Items											
Protocol	Scoring System					Session Total %					

## Marking Code for Preference Assessment

- List each item to be presented
- Present 2 items
- Mark + chosen, - not chosen
- If no choice, 2 -
- Give item chosen for determined period of time, remove, give next pair



# Nathan Preference Assessment Data

Nathan	DATE											
Preference Assessment - Snack Items												
ITEMS	1	2	3	4	5	6	7	8	9	10	11	
Craisins				-				+		+	+	
Fritos		-	-		+				+			
Lays Wavy Chips	-								-			
Pop Chips				+		-		-			-	
Pretzels	+				-					-		
Tostios		+	+			+	+					
Drink							-					



# Instructional Strategies for Teaching Communication

**Establish intentional communication behaviors**

**(2 types)**

- 1. Social contingency awareness**
- 2. Cause-effect, Means-ends**

**Activity**



p16-20 \* [www.designtolearn.com](http://www.designtolearn.com)

2014 \* [www.kellyfonner.com](http://www.kellyfonner.com)



# Example Script Preference Probe Reinstatement

Oakland Schools - CEP: Communication Enhancement Project - COMMUNICATION SCRIPT

FIRST THINGS FIRST SCRIPT (modified from DesignToLearn.com)

Script ID#: EXAMPLE 2      District: \_\_\_\_\_      Age Range: 9 - 12  
 Activity Topic: Leisure      Communication Purpose: Preference assessment      Objective: Student will express desire to continue to play with item by vocalizing or activating a switch

Sub Topic: Motivating Activities      Criteria (Measurable): Daily, increased 50% over baseline

Setting: in classroom  Materials: 5 motivating items  Positioning of student: student seated in wheelchair with tray on  Positioning of AAC device: Switch in front of student  Position of Communication Partner: in front of student  Position of Communication Facilitator: 2 <sup>nd</sup> adult not needed	Step#1: Staff cues (verbal, visual): No extra visual or verbal cueing, observe student reaction to stopped engagement in play	Staff assistance(physical): Protocol: (1) partner engages Student in play for 30 Seconds; (2) partner pauses for 15 sec. If Student vocalizes, repeat play with same item; if not, present new item	What student communicates: to reinstate activity with any vocalization or whatever is programmed on switch  How student communicates: with any sound or by activating switch and/or touching object on switch which should be enough pressure to activate switch	If student does: vocalize or activate switch	Then staff: partner engages Student in play for 30 Seconds
				If student doesn't: vocalize or activate switch	Then staff: Pause additional 30 seconds & present new item



# Data Collection Charting

For students that you are doing a preference assessment or teaching a communication intent/behavior

- Data Collection through Daily Performance Data
- (p.15, 16, 39)

Student: \_\_\_\_\_

Function targeted: \_\_\_\_\_

Date:	1	2	3	4	5	6	7	8	9	10	%
Items											
Protocol	Scoring System								Session Total %		

## Marking Code for “More”

- List each item to be presented
- Present ONE item at a time
- Mark with + if chosen
- Give item for predetermined period of time
- Change to next item when no longer requesting

# Data Collection Preference Reinstatement Probe

Landon										
Preference Assessment - Songs by Switch										
# of Reinstatement	1	2	3	4	5	6	7	8	9	10
Twinkle Twinkle Song										
Trial#1 (on Side)	+	+								
Trial#2 (sitting)	+	+	+	+	+					

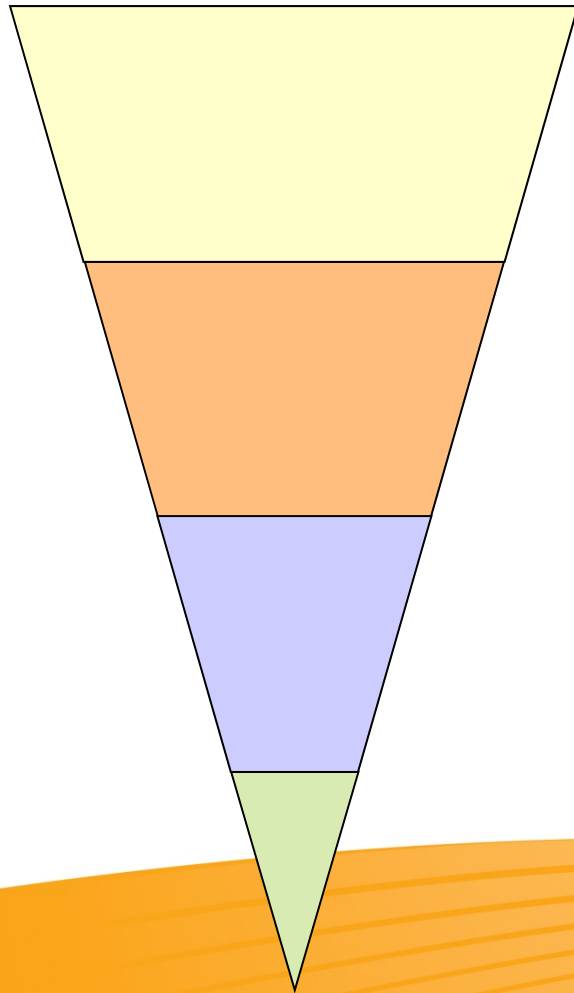
# Communication Activity Purposes: Expand the Repertoire of Communication Behaviors & Intents

## Activity



- **Reinstatement** (p21-23)
  - I want more!
  - Time to change
- **Gaining Attention** (p25-32)
- **Communicating Choices** (p33-35)
  - Choice Making
  - Preferred items
  - Non-preferential items/Distractors
  - Rejection

# Most to Least Prompting for Teaching a NEW Skill



- **Full Physical**

- Support action to choose from display

- **Partial Physical**

- Touch to start action towards display

- **Modeling**

- Model on separate display

- **Gesture**

- Motion towards display

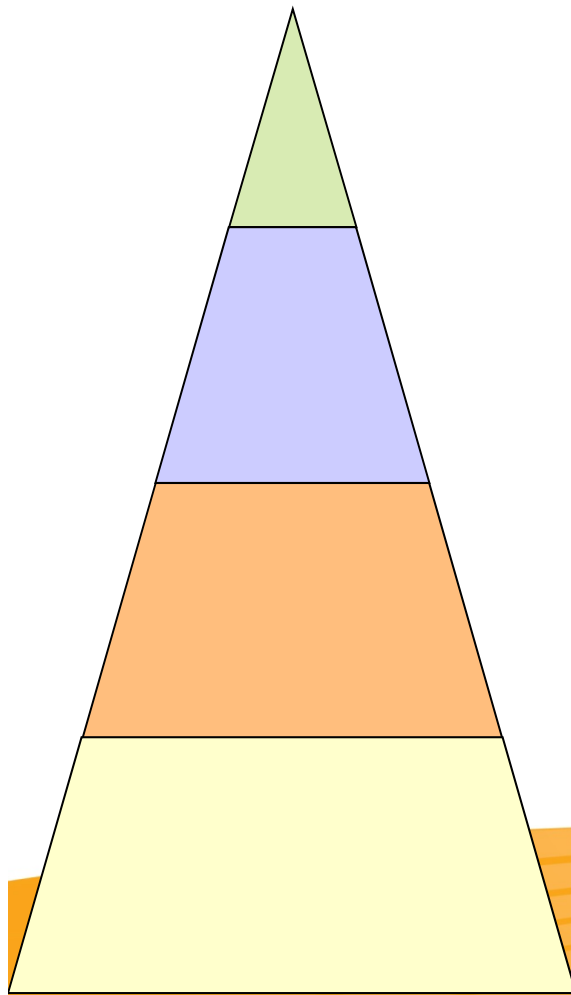
- **Verbal**

- Tell Me

- **Independent**

- Response to natural cue

# Least to Most Prompting for Skill Mastery & Independence



- **Independent**

- Response to natural cue

- **Verbal**

- What do you Need? Or Tell Me...

- **Gesture**

- Motion towards display

- **Modeling**

- Model on their device or separate display

- **Partial Physical**

- Touch to start action towards display

- **Full Physical**

- Support action to choose from display



# Example Script

## Nathan with Prompt Hierarchy

Oakland Schools Communication Enhancement Project  
COMMUNICATION SCRIPT

**Oakland Schools**  
Learning today. Transforming tomorrow.

Script ID#: \_\_\_\_\_  
 Student First Name: Nathan  
 Activity Topic: Leisure  
 Sub Topic: Literacy/Paired text/art

Site: Huron Valley Schools  
 Age Range: 6-8  
 Communication Purpose: Reinforcement  
 Criteria (Measurable): 100% at verbal cue 3 out of 5 days per week

Date: Sa wed 12/6/13

Objective: Student will maintain preferred activity due to turn page of book.

ENVIRONMENT	TEACHING ROUTINE				
Setting, Partner, Position	Staff Setup of Activity		Student Expected Communication	Consequences Given by Staff	
Step#	Staff Cue(s) (verbal, visual):	Staff Assistance (physical):	What Student Communicate(s):	If student does:	Then staff:
Setting: classroom/speech room	"Nathan it is read."	opening of book.	"Read more"	touch visual/activates switch	turns page and read next page.
Material(s): goodnight moon book, pal pad	Staff then opens book and reads first page.			touch visual/activates switch	Then staff: gives the verbal cue "tell me if you want to read more."
Positioning of AAC Device: Pal pad in back of book, sequencer will be out of reach.				touch visual/activates switch	Then staff: points to the corner of the book.
Positioning of Student: chair, stander, or floor			How Student Communicate(s): By touching corner of book with more visual located at bottom right hand corner of every page.	touch visual/activates switch	Then staff: Models touching the bottom corner of the book with the "more" visual to activate switch.
Position of Communication Partner: next to student.				touch visual/activates switch	Then staff: provides partial physical assistance and guides student's hand to corner of book to activate switch.
Position of Communication Facilitator: next to or behind student.				touch visual/activates switch	Then staff: Provides full physical assistance and provides hand over hand assist to

Updated Script Form for Communication Enhancement Project 10/12 \* Oakland Schools \* Modified from [www.ohioaet.org/ocet](http://www.ohioaet.org/ocet)

# Data Collection Charting

- For students that your are reinforcing learned communication intents/behaviors, choice making, etc.
  - Data Collection on Prompting Hierarchy

CEP DATA COLLECTION CHARTING							
For reinforcing learned communication intents/behaviors							
<u>PROMPT HIERCHARY</u>							
Student: _____				Instructor: _____			
Objective(s): 1. _____ 2. _____							
Criteria:							
Materials:							
Facilitator Prompting Sequence ->>>>>							
Date	Student Response	Independent Natural Cue	Verbal	Gesture	Model	Partial Physical	Full Physical





# Scripting

- **Should state what the student will do or say to complete the activity at the final criterion**
- **Use only verbs such as Ask Tell Say and Answer to describe the communication from the student**
- **Remember that all communication has equal value regardless of the modality being used**

# Components of a Communication Script

1) Objective(s)

2) Criteria

3) Materials

4) Environment (Setting, Partner, Positioning)

5) Teaching Routine

- Staff cue & assistance (verbal, visual, physical)
- Student target behavior (what do they communicate & how/mode)
- Consequence (what happens if they do & what happens if they don't)

CEP COMMUNICATION SCRIPT - page 1 of 1

School: \_\_\_\_\_  
Student: \_\_\_\_\_  
Date: \_\_\_\_\_

Objectives: 1: \_\_\_\_\_  
2: \_\_\_\_\_

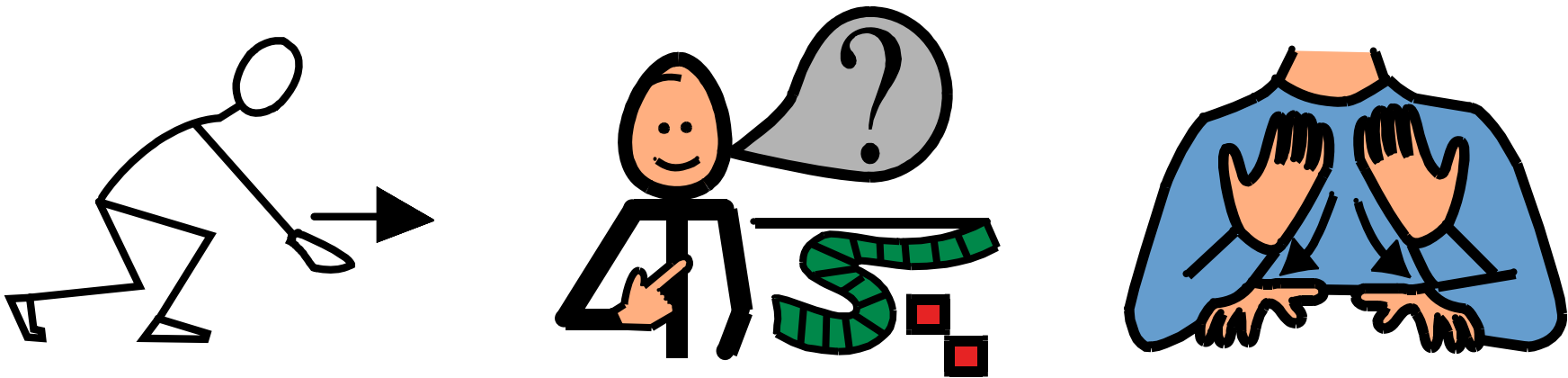
Criteria: \_\_\_\_\_

Materials: \_\_\_\_\_

ENVIRONMENT	TEACHING ROUTINE			
Setting, Partner, Position	Cues (verbal, visual)	Assistance (physical)	Target Behavior	Consequences
Setting (including location of Materials):  Positioning of Student & AAC:  Partner location:	Staff: Step #1	Staff Prompt:	What Student Communicates:  How Student Communicates (mode):	If Student does: - Then Staff:  If Student doesn't: - Then Staff:
	Staff: Step #2	Staff Prompt:	What Student Communicates:  How Student Communicates (mode):	If Student does: - Then Staff:  If Student doesn't: - Then Staff:
	Staff: Step #3	Staff Prompt:	What Student Communicates:  How Student Communicates (mode):	If Student does: - Then Staff:  If Student doesn't: - Then Staff:

# Think through the Whole Activity

- Beginning – Middle – End



- Not just one step – make a whole activity

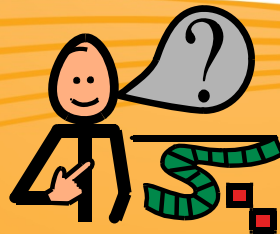
# Building Symbolism with the Same Activity - Types of Chaining

- **Forward Chaining**

- Start at first part of task & proceed sequentially to the last part. One step at a time until skills are built to the last part of the task.

- **Backward Chaining**

- Start at the last part of the task & proceed sequentially to the first part. Student completes the last step first & experiences the whole task.



# POLL:

## As we near the end

For future sessions... **How many of you plan to attend?**

**Session 3 – Analyzing Data from LoTech AAC & Apps**

Click next to the topic(s) that interest you – thanks!





# **FOLLOW UP ASSIGNMENT & ACTION PLANNING**

- **Typically - Video Your Student Each Month**
  - **For our purposes, video each week, so you have data to use by the next webinar**
- **Use the appropriate Data Collection Chart**

# *Thank you!*

Please feel free to email  
with any questions or  
what information on CEP  
training  
after the viewing this  
information:  
[kellyfonner@gmail.com](mailto:kellyfonner@gmail.com)



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