AAC in the Classroom for Students with Significant Disabilities

Session 1: A Progression Strategy From BIGmack® to SoundingBoard and Beyond!

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A 3 Part Series:
AAC in the Classroom for Students with Significant Disabilities

Session 1 – A Progression Strategy From BIGmack® to SoundingBoard and Beyond

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

Session 3 – Analyzing Data from LoTech AAC & Apps

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Students need a PURPOSE in order to Communicate

Partner   P U R P O S E   **Environment**

Activity

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Remember...

Theory never becomes reality without practice.

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Communication Enhancement Process (CEP) Project

Oakland County Schools, Michigan (6 years)

Ohio – Regions 2, 3, 8, & 9 (1st year)

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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**

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Communication Modes

Unaided strategies

- Reflex
- Repetition of Action
- Eye gaze
- Head movement
- Body movement
- Vocalizations

Aided strategies

- Eye gaze to representations
- Reaching / Pointing to
- partner assisted scanning techniques
- Switch activation of symbol
- Dedicated AAC devices
- Non-dedicated AAC software

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Categories of Expressive Communication Functions (birth – 2 years)

- **Refuse**
- **Obtain**
- **Social**
- **Information**

Rowland & Schweigert

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A Way to Measure Student Communication (birth- 2yrs)

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www.communicationmatrix.org

Students need a PURPOSE in order to Communicate

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3 Types of Activities

Activity

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

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Instructional Strategies for Teaching Communication

Preference Assessment

Activity

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

p13-15 * www.designtolearn.com
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Instructional Strategies for Teaching Communication

Activity

Establish intentional communication behaviors

(2 types)

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

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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

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Some Examples

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

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Some AAC Tools Used in CEP Activities

- Dedicated Tools
- Apps

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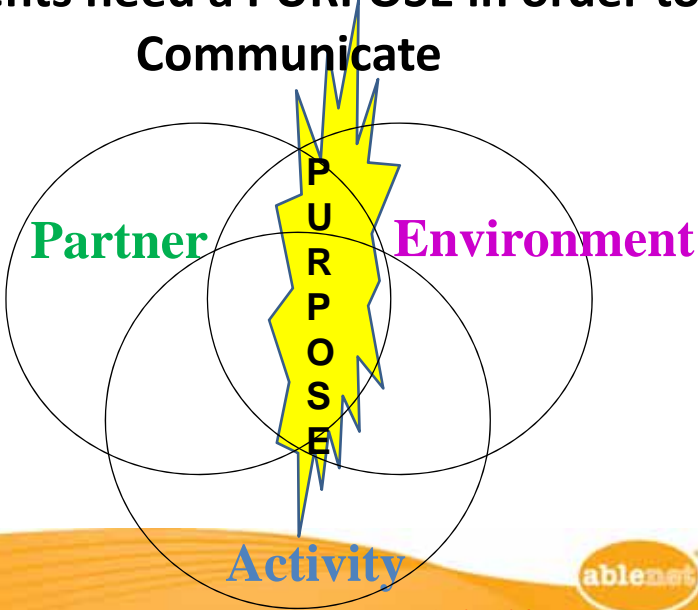
POLL:
How Many of You are using …

1. NoTech Strategies
2. LoTech Devices
3. Dedicated HiTech Devices
4. AAC Apps on iPads

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Students need a PURPOSE in order to Communicate

Partner   Environment

P
U
R
P
O
S
E

Activity

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Environmental Arrangements

Environment

- Materials in view, out of reach
- Materials with which they need assistance
- Small amounts
- Inadequate portions
- Involvement of Peer Partners

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Being an Effective Communication Partner
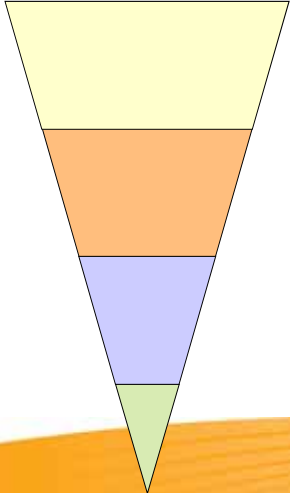
Partner

- Give time to respond
- Avoid excessive use of questions
- Avoid repeating or questioning a child's message
- Make available communication tools where & when needed

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Most to Least Prompting
for teaching a NEW skill
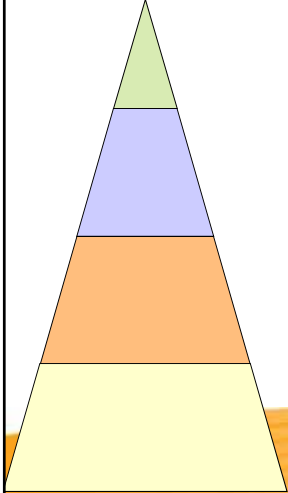
- **Full Physical**
  - **Support action to choose from display**
- **Partial Physical**
  - **Touch to start action towards display**
- **Modeling**
  - **Model on separate display**
- **Gesture**
  - **Motion towards display**
- **Verbal**
  - **Tell Me**
- **Independent**
  - **Response to natural cue**

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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**

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Be *descriptive* in you Feedback
<u>NOT</u> rewarding
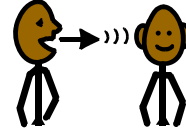
- **Confirms message sent by the person**
- **Don't re-ask questions**
- **Opportunity to expand upon language &/or device use**
- **Respond to intelligible utterances or indistinct gestures by requesting that the person "say it another way"**

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Pulling it all Together

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**

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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)

An Example Script (CEP)

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,   Communication Purpose (circle) preference assessment, refuse, obtain, gain attention, reinstate,
food, job, leisure, PE, self help, sensory, social, other _____   make choice, social, get information, other _____

Sub Topic:_____   Criteria (Measureable):_____
Objective:_____

ENVIRONMENT	TEACHING ROUTINE -------------------------------->				
Setting, Partner, Position	Staff Set-up 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 * modified from www.Design2Learn.com

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Some Examples

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

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POLL:
As we near the end

For future sessions… How many of you plan to attend?

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

Session 3 – Analyzing Data from LoTech AAC & Apps

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

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Searching for AAC Products?

• **Abledata**

www.abledata.com

• **Closing The Gap - Solutions**

www.closingthegap.com/solutions

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Oakland Schools - CEP: Communication Enhancement Project - COMMUNICATION SCRIPT

FIRST THINGS FIRST SCRIPT   (modified from DesigntoLearn.com)

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

Student First name: EXAMPLE 1.   **Age Range:** insert age

Activity Topic: Leisure   **Communication Purpose:** Preference Assessment

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

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

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

Oakland Schools - CEP: Communication Enhancement Project - COMMUNICATION SCRIPT

FIRST THINGS FIRST SCRIPT (modified from DesigntoLearn.com)

Script ID# : EXAMPLE 2 | **District** | **Age Range:** 13 - 26
Activity Topic: Social | **Communication Purpose:** Reinstatement | **Objective**: Student will choose a classmate to pick a new song.
Sub Topic: Music | **Criteria (Measureable):** Everyday, Choose one out of 3 trials

ENVIRONMENT	TEACHING ROUTINE --->				
Setting, Partner, Position	**Staff Set-up of Activity**		**Student Target Behavior**	**Consequence given by staff**	
				Student	**Staff**
Setting: in classroom, in a group semicircle in front of Promethean Board **Materials**: pictures of students **Positioning of student:** in his wheelchair with his tray on & with head, hand &/or knee switch attached to the appropriate area **Positioning of AAC device :**head switch (when appropriate) hand & knee switch, voicepal **Position of Communication Partner:** student peers are considered listening partners **Position of Communication Facilitator:**staff to be standing in front of student	**Step #1** **Staff cues (verbal, visual):** "student, who should pick the next song for music time (or activity for leisure)?" <u>PAUSE 1 second</u> "You can tell me your choice by your hand or knee."	**Staff assistance(physical):** Staff will show student where all his switches are & activate each one with his appropriate body part.	**What student communicates:** he is choosing who will go next by saying the person's name using the voicepal. **How student communicates:** activate a head, hand or knee switch that will say "a classmates' name"	**If student does:** say a name **If student doesn't**: say a name **If student doesn't**: say a name **If student doesn't**: say a name **If student doesn't**: say a name	**Then staff:** give music control to named student **Then staff:** asks question again **Then staff:** gestures towards the switches & gives the verbal cue again **Then staff:** models moving his hand & knee toward the switches but DO NOT activate them **Then staff:** activates the switch to choose the next student

*Updated Script Form for Communication Enhancement Project *2012 * Oakland Schools * modified from www.DesignToLearn.com*

Oakland Schools - CEP: Communication Enhancement Project - COMMUNICATION SCRIPT

FIRST THINGS FIRST SCRIPT (modified from DesigntoLearn.com)

Script ID# : EXAMPLE 3   **District**   **Age Range:** 13 - 26
Activity Topic: Food   **Communication Purpose:** Make choice   **Objective**: Student will select a snack.
Sub Topic: Snack   **Criteria (Measureable):** Everyday, 75% choice on 1st verbal request, choice offered minimum 4x each snack time

ENVIRONMENT	TEACHING ROUTINE --->				
Setting, Partner, Position	**Staff Set-up of Activity**		**Student Target Behavior**	**Consequence given by staff**	
				Student	**Staff**
Setting: in classroom, at a table **Materials**: 2 snack choice pictures with snack choices out of reach **Positioning of student:** seated **Positioning of AAC device :** pictures held in front of student **Position of Communication Partner:** next to student **Position of Communication Facilitator:** 2nd adult not needed	**Step#1** **Staff cues (verbal, visual):** "It's snack time, what would you like to eat?"	**Staff assistance(physical):** none	**What student communicates:** her food choice **How student communicates:** by touching or taking picture	**If student does:** touch picture **If student doesn't:** touch picture **If student doesn't:** touch picture **If student doesn't:** touch picture	**Then staff:** gives her the food item **Then staff:** waits 5-10 seconds **Then staff:** repeats verbal prompt **Then staff:** does hand-over-hand to touch choice

Oakland Schools - CEP: Communication Enhancement Project - COMMUNICATION SCRIPT

FIRST THINGS FIRST SCRIPT (modified from DesigntoLearn.com)

Script ID# : EXAMPLE 4   **District:** Farmington Schools   **Age Range:** 13 - 26
Activity Topic: Leisure   **Communication Purpose:** Obtain   **Objective**: Student will independently explore tactile card representing swing.
Sub Topic: Swing   **Criteria (Measureable):** 3-5 x per Week, 100% exploration of card w/less than full physical prompt

ENVIRONMENT	TEACHING ROUTINE -->				
Setting, Partner, Position	**Staff Set-up of Activity**		**Student Target Behavior**	**Consequence given by staff**	
				Student	**Staff**
Setting: in classroom **Materials**: Swing mounted to ceiling; tactile card representing handles on swing "presented individually On" Velcro choice board; **Positioning of student:** begins seated in tumble form seat **Positioning of AAC device :** card attached to choiceboard by Velcro; board presented to him in front, at chest level by partner **Position of Communication Partner:** standing/ seated in front of student **Position of Communication Facilitator:** 2nd adult not needed	**Step #1** **Staff cues (verbal, visual):**NA (student deaf/blind)	**Staff assistance(physical):** Place Student's Hand on choice board NOT TO TACTILE CARD	**What student communicates:** desire to swing **How student communicates:** exploration of tactile "swing" card	**If student does:** Explore Swing card	**Then staff:** treat this as communication & help student onto swing
				If student doesn't: Explore Swing card or board	**Then staff:** provide a **Tactile cue** in the form of Tapping Choice Board
				If student doesn't: Explore Swing card or board	**Then staff:** provides a **Partial Physical Prompt** in the form of Holding student's elbow to put his hand in position for easy exploration of choice board
				If student doesn't: Explore Swing card or board	**Then staff:** provides a **Full Physical Prompt** in the form of taking his hand to physically explore the card & choice board

Oakland Schools - CEP: Communication Enhancement Project - COMMUNICATION SCRIPT

FIRST THINGS FIRST SCRIPT (modified from DesigntoLearn.com)

Script ID# : EXAMPLE 5   **District:**   **Age Range:** 9 - 12
Activity Topic: Leisure   **Communication Purpose:** Preference assessment   **Objective**: Student will tactile scan Left to Right of object tangibles
Sub Topic: Motivating Activities   **Criteria (Measureable):** Daily,

ENVIRONMENT	TEACHING ROUTINE -->				
Setting, Partner, Position	**Staff Set-up of Activity**		**Student Target Behavior**	**Consequence given by staff**	
				Student	**Staff**
Setting: in classroom **Materials**: object tangibles, motivating activities, Velcro tray **Positioning of student:** student seated in wheelchair with tray on **Positioning of AAC device :**object tangibles places on Velcro tray. (Begin with 2 objects) **Position of Communication Partner:** in front of student **Position of Communication Facilitator:** 2nd adult not needed	**Step#1:** **Staff cues (verbal, visual):** Give student choice of options by first verbally introducing activity. "Lauren, what do you want to do?" Then, name each item as it is touched.	**Staff assistance(physical):** Guide student through choices by tactile scan (hand over hand) to touch object tangibles from left to right on a velcro tray.	**What student communicates:** her activity choice **How student communicates:** by reaching for and picking up object symbol that represents the preferred activity	**If student does:** reach/takes off tangible symbol	**Then staff:** gives her the associated motivator for 5-10 seconds to manipulate/play
				If student doesn't: reach/takes off tangible symbol	**Then staff:** repeats the guided scan
				If student doesn't: reach/takes off tangible symbol	**Then staff:** repeats the guided scan
				If student doesn't: touch picture	**Then staff:** Ends the Activity by saying "You must not want any of these choices. We are all done."

*Updated Script Form for Communication Enhancement Project *2012 * Oakland Schools * modified from www.DesignToLearn.com*

Oakland Schools - CEP: Communication Enhancement Project - COMMUNICATION SCRIPT

FIRST THINGS FIRST SCRIPT (modified from DesigntoLearn.com)

Script ID# : EXAMPLE 6   **District:**   **Age Range:** 3 - 8
Activity Topic: Other **Communication Purpose:** Make choice   **Objective**: Student requests to go to Gross Motor Room
Sub Topic: Sensory/Gross Motor   **Criteria (Measureable):** Daily, follows through 75% after initiation

ENVIRONMENT	TEACHING ROUTINE -->				
Setting, Partner, Position	**Staff Set-up of Activity**		**Student Target Behavior**	**Consequence given by staff**	
				Student	**Staff**
Setting: inside classroom door, gross motor room **Materials**: single photos of gross motor items, talking schedule board; open symbols, single message device	**Step#1:** **Staff cues (verbal, Visual):** student, do you want to go to the gross motor room?"	**Staff assistance(physical):** remove all photos from schedule except for gross motor room activity	**What student communicates:** "I want gross motor room" **How student communicates:** walks to visual schedule and removes gross motor room photo	**If student does:** make request	**Then staff:**joins her at the door & tells her it's okay to go
				If student doesn't: walk to schedule & remove symbol	**Then staff:** walks her to schedule & assists her to pull off symbol
Positioning of student: student is mobile **Positioning of AAC device :**talking schedule is to left of inside of classroom door; Gross motor choices are on board inside gross motor door; open message is on wall near gross motor room door	**Step#2:** **Staff cues (verbal, Visual):** what do you need now?"	**Staff assistance(physical):** -	**What student communicates:** "open the gate" **How student communicates:** activates single message device	**If student does:** say open with switch	**Then staff:** opens the gate & walks beside her; hold hand if needed
				If student doesn't: say open with switch	**Then staff:** assists her to activate switch
	Step#3: **Staff cues (verbal, Visual):** Environmental Cue= door is closed; Verbal= "what do you need now?"	**Staff assistance(physical)** -	**What student communicates:** "help open the door" **How student communicates:** pulls symbol off & hands to staff	**If student does:** request open	**Then staff:** opens the gross motor room door
Position of Communication Partner: partner stands near to student & follows as she moves to table				**If student doesn't** hand open symbol	**The staff:** assists her to pull off symbol
Position of Communication Facilitator: 2nd adult not needed	**Step#4:** **Staff cues (verbal, Visual):** "what do you want to do?"	**Staff assistance(physical)** Shows pictures (by pointing or taking off board) & tells what they are	**What student communicates:** "I want to _____" **How student communicates:** pulls symbol off & hands to staff	**If student does:** request activity	**Then staff:** says "okay you can_____"
				If student doesn't hand symbol	**The staff:** shows symbols & repeat choices (do twice before return to room)

*Updated Script Form for Communication Enhancement Project *2012 * Oakland Schools * modified from www.DesignToLearn.com*

Oakland Schools - CEP: Communication Enhancement Project - COMMUNICATION SCRIPT

FIRST THINGS FIRST SCRIPT (modified from DesigntoLearn.com)

Script ID# :   EXAMPLE 7   **District**   **Age Range:** 9 - 12
Activity Topic: Leisure   **Communication Purpose:** Preference assessment   **Objective**: Student will tactile scan Left to Right of object tangibles
Sub Topic: Motivating Activities   **Criteria (Measureable):** Daily,

ENVIRONMENT	TEACHING ROUTINE -->				
Setting, Partner, Position	**Staff Set-up of Activity**		**Student Target Behavior**	**Consequence given by staff**	
				Student	**Staff**
Setting: in classroom **Materials**: object tangibles, motivating activities, Velcro tray **Positioning of student:** student seated in wheelchair with tray on **Positioning of AAC device :**object tangibles places on Velcro tray. (Begin with 2 objects) **Position of Communication Partner:** in front of student **Position of Communication Facilitator:** 2nd adult not needed	**Step#1:** **Staff cues (verbal, visual):** Give student choice of options by first verbally introducing activity. "student, what do you want to do?" Then, name each item as it is touched.	**Staff assistance(physical):** Guide student through choices by tactile scan (hand over hand) to touch object tangibles from left to right on a velcro tray.	**What student communicates:** her activity choice **How student communicates:** by reaching for and picking up object symbol that represents the preferred activity	**If student does:** reach/takes off tangible symbol	**Then staff:** gives her the associated motivator for 5-10 seconds to manipulate/play
				If student doesn't: reach/takes off tangible symbol	**Then staff:** repeats the guided scan
				If student doesn't: reach/takes off tangible symbol	**Then staff:** repeats the guided scan
				If student doesn't: touch picture	**Then staff:** Ends the Activity by saying "You don't want any of these choices. We are all done."

Oakland Schools - CEP: Communication Enhancement Project - COMMUNICATION SCRIPT

FIRST THINGS FIRST SCRIPT (modified from DesigntoLearn.com)

Setting: in classroom **Materials**: object tangibles, motivating activities, single message device **Positioning of student:** student seated in wheelchair with tray on **Positioning of AAC device :****After choice is made, a single message device is place on wheelchair tray & secured with Velcro. Velcro on top of device for securing tangible object **Position of Communication Partner:** in front of student **Position of Communication Facilitator:** 2nd adult not needed	**Step#2:** **Staff cues (verbal, visual):**.	**Staff assistance(physical):** After 5-10 seconds of play with chosen activity. Selected item is removed and placed on top of single message device.	**What student communicates:** to reinstate activity with "I want more" **How student communicates:** by activating switch and/or touching object on switch which should be enough pressure to activate switch	**If student does:** say more	**Then staff:** gives her the associated motivator for 5-10 seconds
				If student doesn't: say more	**Then staff:** hand over hand guides (but doesn't activate) to object on switch
				If student doesn't: say more	**Then staff:** hand over hand guides (nut doesn't activate) to object on switch
				If student doesn't: say more	**Then staff:** go back to the beginning of the activity, presenting new activity choices Step#1

Oakland Schools - CEP: Communication Enhancement Project - COMMUNICATION SCRIPT

FIRST THINGS FIRST SCRIPT (modified from DesigntoLearn.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, reinstate, make choice, social, get information, other_____

Sub Topic:_____

Criteria (Measureable):_____

Objective:_____

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