

The Strategies of ECT: Environmental Communication Teaching

Introduction - Developing a Focus on Communication in the Classroom

Step 1- Activities are the Foundation

Step 2- Prepare for Communication Interaction

Step 3- Arrange the Environment

Step 4- Communication Partner Strategies

Step 5- Plan with Activity Based Objectives

ECT Foundation

- Grant
 - George Karlan PHD, Irene McEwen PT, Purdue University
- Timeline
 - Research years 1988-1991; continues Nationwide
 - States involved: IN, PA, TX, WI, OH, FL, GA, IL
- Goals of Grant
 - Increase communication in augmented speakers
 - Impact classroom staff implementation strategies through adult learning strategies
- Service Delivery Models that support AAC
 - Skill Cluster Instruction
 - Integrated Therapies

The Basics of Environmental Communication Teaching

- Arranging the environment
- Selecting communication targets
- Responding to the student's initiations
- Reinforcing the student's communicative attempts

GROUP ACTIVITY:

Common Problems for Augmented Communicators

Student:

Adult:

Common Characteristics of Students who Struggle with Speech

- Rarely initiate interactions
- Primarily respond to others' initiations
- Usually communicate via multiple, unconventional modes
- Head nods and shakes in response to yes/no questions are the most frequently used mode
- Unintelligible vocalizations are common
- Spontaneous communication is less complex than in elicited situations
- Rarely interact with peers
- Vocabulary not available when the student needs to communicate

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Partner Characteristics: Communication Interaction Style

- Tend to dominate the interactions
- Preempt the student's turn
- Don't give students time to formulate messages
- Often fail to respond to student's initiations
- Often anticipate the student's needs and thoughts, making it unnecessary for them to communicate
- Use rhetorical speech for which answers are not being solicited
- Use "Fills" and "Tags" which obscure the meaningful message or cancel intended effect
- May sometimes double-state messages

Solutions-Develop an understanding of the three major aspects of the intervention process

1. Understand the communicative requirements of activities
2. Understand how partners can act to facilitate, rather than inhibit, the student's or young child's communication skills
3. Understand how communication is developed from within the context of particular activities, not as a separate enterprise

STEP 1 – Activities are the Foundation of Communication

*Connect the activity with the type of communication that you are targeting.
Students learn vocabulary in context.*

Activities have a Communicative Context

Dyadic Interaction = Social Interaction...Arriving, departing, breaks or transitions between classes or work or community **activities**

Joint Action Routines = Activities that are common...to home activities, to school routines, to job activities, to community activities; Scriptable, Context Specific Vocabulary

Behavior Regulation = What the AAC user says to...direct the actions of another; have basic daily needs met for...hygiene, getting around, physical care, dressing

Instructional Activities = Participating by Presenting, Answering & Asking questions...in class, in a meeting, in an interview

School-based Activity Ideas

- | | |
|---------------------|----------------------------|
| ■ Arrival at School | ■ Classroom or School Jobs |
| ■ Personal Hygiene | ● Delivering mail |
| ■ Morning Meeting | ● Collecting Trash |
| ■ Current Events | ■ Lunch Time |
| ■ Reading | ■ Art Projects |
| ■ Snack Preparation | ■ Physical Education |
| ■ Math Groups | ■ Preparing to go home |

Activity Structuring - Identify:

- Natural Environments
- Routines within those environments
- Specific skills required throughout the activity
- Discrepancies between current and desired performance
- Existing or new communication requirements
- Communication messages

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Planning Steps of an Activity

- How is it **Initiated**?
 - Where does it begin?
- What is the transition from the previous activity?
 - Who begins it?
 - How is it begun?
 - What is said or done?
- How is it **Maintained**?
 - What are the operations that must be carried out?
 - With what must they be done?
 - Who must do them?
 - What must be said to carry them out?
 - Who must say these things?
- How is it **Terminated**?
 - What actions end the activity?
 - Who does them?
- When
 - Who ends the activity?
 - What do they say?

Target Activities with these characteristics

- “Process” rather than “product” oriented
- Represents class of activities (examples: cooking, art, reading, exercise, games)
- More than one “selection” for activity type can be offered at any given time
- Activity occurs 3-4 times each week

STEP 2 – Prepare for Communication Interaction

Isn't that what it's all about? If we can't demonstrate our knowledge, what's the use of learning?

Activities can target

- Vocabulary Expansion
- Language Development
- Multi-modal Communication
- Replacing “Bad Behaviors” with Communicative Behaviors

COMMUNICATIVE MODEL

- Social Contexts
- Social Regulation Functions
- Communicative Functions
- Communicative Behaviors

Social Regulation Functions

- Initiate interaction
- Maintain interaction
- Redirect interaction
- Terminate interaction

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Categories of Communicative Function

- Requesting an Action, Object, Person, Information
- Directing Attention to Self, Object, Person, Action
- Rejecting/Refusing
- Commenting
- Giving Information
- Seeking Information
- Expressing Feelings
- Greeting
- Reinforcing
- Answer
- Comply
- Social Niceties

Communicative Behaviors

- Modality
 - Spoken
 - Gestural
 - Manual sign (unaided symbols)
 - Visual-graphic (aided symbols)
 - Multiple modality usage

Communicative Behaviors

- Level of Code
 - Reflex behaviors
 - Action sequence
 - Signal
 - Symbol used when referent present
 - Symbol used when referent is not present

STEP 3 – Arrange the Environment

Use the Natural Environment to Initiate Communication

Environmental Arrangements

- naturally occurring, not special “AAC activity time”
- interesting materials & activities
- materials in view, out of reach
- materials with which need assistance
- novel elements
- small amounts
- inadequate portions
- sabotage of familiar routine
- provide choices
- provide supports

Communication Supports

- Schedule Systems
 - Activities of the Day Schedules
 - Within-activity Task Schedules
- Picture-based Prompt Cues for Talking
- Teaching Displays as a
 - mnemonic device for what to communicate
 - picture sequence chart for task performance
 - visual “bridges” for transitions

STEP 4 – Communication Partner Strategies

Communication is a 2-Way Street. We want to practice adult behaviors that elicit (not inhibit) communication

Some things you can do to encourage Communication

- Don't exempt your student's turn
- Don't anticipate every need
- Make different types of choices available
- Sabotage known routines
- Slow down
- Create silly situations
- Model device use
- Focus on use in natural settings
- Cut back on “show speech” performing tricks
- Increase expectancy of communication
- Promote peer interaction

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Spoken Prompt Hierarchy

1. Set the Environment -----Pause
 2. Ask Open Question -----Pause
 3. Give Partial Prompt -----Pause
 4. Request for Communication-----Pause
 5. Provide Full Model -----Pause
- * Descriptive Feedback Follows Communication

Non- Spoken Prompt Hierarchy

1. Set the Environment -----Pause
 2. Gesture towards or Light Area -----Pause
 3. Point or Light to Two choices ----- Pause
 4. Point or Light the expected response -- Pause
 5. Provide Full Model -----Pause
- * Descriptive Feedback Follows Communication

1. The Pause

If an environmental cue or a transitional cue has just occurred
Focus your attention on the student and PAUSE

2. Open Question

If the student or young child does not respond to the pause by making or attempting a response...
Ask a what, why, who, when, where, or how question, and then PAUSE

3. Partial Prompt

If the student or young child does not respond to the open question or produces a minimal response...

Provide part of the response by:

- asking a question that contains a choice,
- giving a hint or a clue, modeling the first few words (or sounds) of the answer, and then PAUSE

4. Request for Communication

If the student or young child responds to the pause or the open question with behavior that is:

- inappropriate, or
- at a lower level than desired for that student

Request that the student or young child use another form or elaborate on the response, and then PAUSE

5. Full Model

If the student or young child has never produced the response you are seeking...

If the student or young child does not respond to the partial prompt or mand or does so incorrectly...

Provide a full model for the response, and then PAUSE.

If the student has an AAC system, provide the model for him to imitate.

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* Descriptive Feedback

- Use after the student or young child has produced a communicative response, or
- Use after the last step of the prompt hierarchy that you need to use
- Descriptive Feedback is specific to the communication behavior:
 - “Great, you asked for more juice and here it is.”
 - “Wow, you asked for the tape player, so here it is.”
 - “You asked for some scissors, what do you need them for?”

STEP 5 – Plan with Activity Based Objectives

*Planning the routine & the environment; what’s to be done & what’s to be said.
It’s about getting everyone on the “same page”.*

Using the ABO (Activity Based Objectives) Format

- What the student must do or say
- Vocabulary that must be available
- The communication mode and level that is expected
- Information about Schedule &/or Teaching Displays

Guidelines for Preparing Activity-Based Objectives

- Should state what the student or young child will do or say to complete the activity
 - Do not state what the student or young child “Will learn to do”
 - Do not include the teaching cues and prompts that may be needed in order to teach the student or young child
 - Teaching cues and prompts can be documented separately
 - Cues and prompts are added and taken away as needed
- Should Describe Final Objectives of the Activity
 - They describe the activity at the final criterion (independence, independent but with personal assistance, etc.) level.
 - If memory aids, such as picture sequence charts, or assistive devices, such as adapted chairs or tools, will be permanently used, they should be reflected within the objectives.
- Use only verbs such as ASK, TELL, SAY, ANSWER to describe the communication of the student
- Remember that all communication has equal value regardless of the modes being used
- Respond to unintelligible verbalizations or indistinct gestures by requesting that the student tell “it” another way

Example ABOs : Making Blender Snacks

1. *When told it’s time to make snacks, S goes to food prep counter & checks snack chart.*
2. *S tells his group what’s being made (“We’re making....”).*
3. *After checking picture recipe, S gets at least 3 different utensils, tools, or ingredients from cabinets or refrigerator.*
4. *When asked what he would like to add, S checks picture recipe & asks for at least 3 different ingredients (“Put in some...”).*
5. *If told to perform action for which utensil isn’t available, S asks for it (“I need a”).*
6. *When asked, S describes at least 2 different actions being performed by others in group (She’s _____ing”).*
7. *After checking picture recipe, S tells at least 2 different peers what to do next (“_____ put in*

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_____” or “Start the blender”).

8. If S does last step in recipe, S tells his group they're finished (It's done”).

Example ABOs - Getting the Mail

1. After returning from lunch, J will ask if it's time to get the mail.
2. J will get everything that she needs for mail, asking for help if needed (cart, device, overlay changed)
3. J will say goodbye when she leaves the classroom.
4. J goes to the office
5. J greets any of the staff in the office
6. J asks if there is mail today.
7. If there is mail, she gets it out of the mail slot, asking for help if needed.
8. J will say goodbye when she leaves the office.
9. J returns to the classroom and tells T whether there was mail or not.

Example ABOs - Feed the Rabbit

1. When told it is time to feed the rabbit, N will check the job sequence chart & bring the necessary items to the work area from the shelves.
2. After checking the sequence chart each time, N will fill the rabbit's bowls with food, then carrots or celery, and finally water.
3. If necessary items are missing or insufficient amounts are available, N will ask for the needed item.
4. After checking chart, N will open or ask for help with opening the cage door and place the food & water into the cage.
5. N will close the cage door, asking for help if needed.
6. After placing the food in the cage, N will put away materials, asking for help, saying that he is finish and ask for the rabbit to be let out.
7. After the rabbit is returned to the cage, N will check his schedule.

Neil's ECT Laundry routine:

1. When N completes trash collection, he will check his sequence chart and tell the teacher (it's time to get the wash).
2. N will get his cart and leave the classroom, asking for help if needed.
3. Upon leaving the classroom, N will go to the PE department office and ask for the clothes (wash clothes?)
4. If N is greeted in the hall, he will say (hello) and continue on his way.
5. If the door is locked to the department office, N will knock on the door. If no one answers, he will tell his teacher (no one is here) and return to the classroom.
6. When N enters the office, he will greet the gym staff (hi).
7. When the department head asks N, “what do you want”, N will ask for the dirty clothes (wash clothes). N will pick up the full basket of dirty clothes and put it on the cart.
8. When the department head says, “thank you”, N will say (good bye) and return to his classroom.
9. Upon his return to the classroom, N will push the cart next to the washer. He will check the machine and refer to the washing flow chart.
10. If there are wet/dirty clothes already in the washer, N will refer to his sequence chart for the next activity.

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11. *If the washer is empty, N will place dirty clothes in washer and add soap, turn on the machine and will tell the teacher that he is finished (I'm finished).*
12. *After the washer is started, N will check his sequence chart for the next activity.*

Nik's ECT Cooking routine:

1. *Nik will check his picture schedule and say: "It's time for cooking"*
2. *Nik will get his cookbook and say: "We're making cinnamon rolls."*
3. *After washing his hands, Nik will use the picture recipe to gather the cooking items. As he gathers each item he will say: "We need an oven mitt, cookie sheet, ect..."*
4. *When asked, Nik will tell Darrell the steps of the recipe, "Preheat oven, open the can of cinnamon rolls, ect..."*
5. *When the cinnamon rolls are done, Nik will take them out of the oven. The pot holder will be missing and Nik will have to ask where it is.*
6. *After completing the last step, Nik will say: "We can eat our cinnamon rolls now."*
7. *While eating Nik will talk about whether or not he likes the taste.*

Data Collection

Collecting Data on Student Progress

- ❖ ECT Prompt Hierarchy
- ❖ Videotaping over time
- ❖ Change in Activity Based Objectives

Creating Action Plans for the Work of ECT (implementation)

- ❖ List of responsibility items
- ❖ List of team members (assign main responsibilities & back-up)