PEARSON NEW INTERNATIONAL EDITION

# Adapting Early Childhood Curricula for Children with Special Needs

Cook Klein Chen

Eighth Edition

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# Pearson New International Edition

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**EXHIBIT 5.5**

**Objectives Within Routine Matrix for 3-year-old Hana**

**Name** ___Hana_____ **Date** _____October 27, 2011_____

| **Objectives** | **Routines** | | | |
|---|---|---|---|---|
| | **Circle** | **Centers** | **Play Outside** | **Snack** |
| Hana will make choices. | Offer Hana a choice of two objects (e.g., spider or scarf) when her turn to choose song. Begin with her favorite ("Itsy, bitsy spider") and less preferred. | Offer Hana choice of two materials (e.g., strip of sponge or popsicle stick) for glue activity. Hana will hold on to either item; needs verbal prompting to dip in glue. Say "dip, dip, dip." | Help peer show Hana an object to represent the area they will play in together (e.g., plastic shovel for sandbox or piece of chain for swings). | Offer Hana the daily snack from a common serving dish. Be sure that the snack (e.g., crackers) is placed on a high contrast colored dish or put on dark-colored paper on dish. |
| Hana will imitate simple gestures, hand movements, and actions. | Sing songs that include movements that Hana will imitate (e.g., Hands go clapping, clapping etc). Use hand-under-hand guidance or prompt from her elbow to imitate other movements (e.g., hands go up). | Demonstrate how to use materials (e.g., dip sponge into bowl of glue and then dab on paper or to crumple tissue paper for project). Verbally prompt Hana to do the same. | Encourage peer to take turns with Hana in sandbox (e.g., by showing her how to scoop sand into a container, poke pegs into a mound of sand, etc). When Hana seems to have had enough of the sandbox, help her imitate the sign for ALL DONE. | After Hana has eaten one cracker (her favorite) ask her if she wants "more" snack and sign MORE. If she looks at the cracker, prompt her from the wrists to make the MORE sign. |
| Hana will respond to her name. | Play a "name game" "Where is xxxx?" Prompt Hana to pat her chest when she hears her name. | | Use Hana's name and the peer's name when facilitating turn taking in sandbox. | Say, "Hana, want snack?" sign EAT. Wait for Hana to look at you. |

Possible adaptation: Move closer to child and face him or her when speaking, and use visuals, gestures, or signs to obtain the child's auditory and visual attention.

3. The child does not want to comply with the request (ignoring direction).
   Possible adaptation: Provide positive reinforcement whenever child follows directions, provide a natural reinforcing consequence to the targeted response, or use high probability requests as a momentum to encourage compliance with a low probability request (see Chapter 4).
4. The child does not know what to do (i.e., hears and may understand the direction but does not have the skill to comply with request).

Possible adaptation: Provide a clear and specific model, use appropriate prompts to guide the child's response so that he or she will learn what is expected.

Whatever the basis of the child's difficulty in responding, be sure to provide positive feedback and reinforcement when the child attempts to comply with the request. This way the child becomes familiar with the routine requests and expected responses.

## Principle of Partial Participation

The principle of partial participation was developed many years ago to support the participation of children with severe disabilities in home, school, and community activities through individualized adaptations (Ferguson & Baumgart, 1991). The principle is based on the belief that all children can participate in everyday activities to the extent of their ability. Teachers might consider which accommodations may be used to support an individual child in a particular activity.

1. **Adapt or modify materials** to fit child's developmental and sensory needs (e.g., make materials larger or smaller to fit the child's learning needs, add dowels on puzzle pieces, use clamps to stabilize materials, provide Velcro fasteners, zipper extender, or switch to activate toy).
2. **Modify or alter task requirements or sequence of skills** (change rules) so that child can complete task (e.g., reduce numbers of items for child to complete, use a glove versus paint brush for painting, or teach how to put toothpaste in mouth instead of on toothbrush to brush teeth).
3. **Provide personal assistance,** that is, use prompts (verbal, visual, gestural, or physical) to help the child's participation or complete part or most of the task depending on the child's abilities and leave some part for the child to complete (e.g., Bob has severe physical disabilities so he looks at the cup or spoon to indicate what he wants and the adult feeds him or gives him a drink).
4. **Make social and attitudinal adaptations,** that is, change assumptions, beliefs, or judgments about the child's limitations and figure out how to facilitate the child's participation in activities (e.g., the adult asks Bob if she can wipe his mouth when he drools). Recognize that some children require consistent and intensive supports.

## Prompting and Fading Procedures

Instructional prompts are used to help children participate in activities and develop skills. Some children attend to natural prompts; others require more specific supports. Prompting and fading procedures are recommended by the Division for Early Childhood (DEC) to promote the acquisition of skills (Sandall, Hemmeter, Smith, & McLean, 2005). There are two ways to use prompts systematically, and both have advantages and drawbacks (Gaisford & Malott, 2010; Mueller, Palkovic, & Maynard, 2007):

- **Most-to-least prompting.**The adult has control over the behavior and ensures that the child responds correctly (errorless learning) particularly when learning a skill. The level of prompts should be faded to decrease the child's dependence on prompts and increase independent skills. Sometimes the child may receive more assistance than needed.
- **Least-to-most prompting.**The child is less likely to become prompt dependent because the use of less intrusive prompts allows the child control over his or her behavior. However, adults may need to increase the level of prompts if errors continue to occur. Least-to-most prompting may produce high error rates in the child's responses and in turn low levels of reinforcement and increased emotional responses. See Exhibit 5.6 for a hierarchy of prompts. To decrease the likelihood of a child becoming prompt dependent, it is essential to fade or change prompts once a child has mastered the skill.

**EXHIBIT 5.6**

## Hierarchy of Prompts

### Natural Cues

Child responds independently to request because he or she notices **natural cues** related to the activity. For example, child sees other children at the snack table and finds an empty chair to sit at the table.

### Verbal Prompts

Specific verbal direction on required response. The verbal prompt (speech or sign) may be direct (e.g., "Find a place to sit") or indirect ("Time for snack"). Once a child understands and responds to a specific verbal prompt, consider varying the request and fading the verbal prompt so the child does not become dependent on the adult's verbal direction. For example, a child may become dependent on the verbal prompt "sit down" and stand by the chair waiting for the adult's verbal prompt.

### Visual Prompts

Pictures, objects, and other visual means (i.e., gestures and labels) may be used as **visual prompts.**

#### *Objects*

An object is used to prompt the child's response; e.g., a cup indicates "Time for snack" and the child takes the cup to the table.

#### *Pictures*

A picture (photo or line drawing) is used to prompt the child's response. For example, a photo of children at the table or drawing of a cup to indicate "Time for snack."

#### *Words*

The printed word is used to prompt the child's response (e.g., the label "Snack").

#### *Gestures*

Gesturing is used to prompt the child's response (e.g., pointing to the snack table).

#### *Modeling*

The expected response or action is demonstrated (e.g., another child is a model and walks in front of the child and finds a place at the table).

#### *Physical Assistance*

The use of physical assistance provides the most support and is the most intrusive type of prompt. It ranges from full physical assistance (e.g., using hand-over-hand guidance to take the child to the table, find a chair, and sit down) to a partial physical prompt (e.g., tapping the child's shoulder to remind the child of the expected response). For physical prompts to be effective, children should tolerate and cooperate with tactile input. Physical assistance is also called manual guidance. Spatial fading or graduated guidance refers to changing the location of the physical prompt (i.e., hand, wrist, forearm, upper arm, elbow, then shoulder) as the child becomes more independent in his or her response.

*Continued*

Teachers need to determine the appropriate type of prompt and whether a most-to-least or least-to-most sequence of prompting fits the child's learning needs and the target activity or expected response. Highbee (2010) provides additional considerations regarding the use of prompts. It is much easier to fade physical prompts than verbal prompts. Fading of physical prompts also includes shadowing the child and gradually increasing the adult's distance from the child. In visual learning activities (e.g., looking at photos of activities) where the goal is to focus the child's visual attention on the target (i.e., photo) to complete an activity independently, have the child tap or touch the target and eliminate distractions (e.g., verbal prompts, gestures, eye contact, praise, or other adult behaviors) from the visual task. This way, the child's attention is on the visual target and his or her own behavior.

## Errorless Learning

Errorless learning refers to teaching procedures that decrease the chance that various factors may influence the child's incorrect response and increase the likelihood that the child will respond correctly. Common activities include teaching a child to identify objects, pictures, words, colors, shapes, and numbers (Mueller, Palkovic, & Maynard, 2007). Maximizing the chance that the child will respond correctly provides a foundation of correct responses on which the child can build. Further, the teacher can positively reinforce the child for these correct prompted responses to motivate participation in learning opportunities. In this way a child develops a sense of competence and experiences success. Procedures include reducing distracters and using physical prompts to elicit the correct response. After providing errorless learning procedures for a certain period of time, teachers can evaluate the child's progress by removing the prompt.

Errorless learning is effective in teaching children with severe intellectual disabilities or memory difficulties who make frequent mistakes, lack self-confidence, and do not remember learning experiences or feedback on their responses. In contrast, trial-and-error learning may be effective for children who are more often correct than incorrect in their responses, have self-confidence, are able to remember learning experiences, and can use feedback on their responses. Some children with disabilities require systematic and sequential instruction to discriminate, match, and sort pictures. Instructional strategies that support errorless learning include simple discrimination learning, match-to-sample, and sort-to-sample.

**Simple discrimination learning** involves the ability to identify whether objects are the same or different. Initially, when teaching a child to discriminate between two items, begin with items that are very different in appearance and function (e.g., ball or spoon). Once the child can recognize these differences, then teach discrimination of two items (e.g., bowl and cup) that vary in one relevant feature (i.e., form) while other dimensions (i.e., size and color) are the same. Higher-level discrimination learning is achieved when the child can identify objects that vary on multiple dimensions (i.e., size, color). That is, a bowl is a bowl despite differences in size and color. Discrimination learning can be encouraged through natural activities, for example, in a nature walk, picking up leaves or stones.

**Match-to-sample** is an instructional format that teaches the child to select an item from an array of items that matches a sample item. The sample and array may be objects or three-dimensional items or pictures or two-dimensional items (Gaisford & Mallot, 2010). The teacher provides a model of the "correct choice" (i.e., cup) from a number of "incorrect choices" (i.e., bowls) from which to select the one that corresponds to the model. In addition it is important to build in opportunities for the child to generalize the skill across situations (e.g., identifying cups in creative play in the house area or setting the table, or pictures of cups). Match-to-sample is also one way to determine what concepts a child understands when he or she cannot communicate verbally.

**Sort-to-sample** is used to teach the child to sort a variety of items into two categories that are represented by models. The first step is to sort by "similarity" of characteristics on a single dimension such as color, shape, or size. For example, sorting blocks that are identical in size and color are two different shapes. The next step is sorting on two dimensions, for example, a group of same-colored objects that vary on two dimensions (e.g., blocks that are different in size and shapes). Sorting may be based on multidimensional differences such as sorting toys and clothing and then may progress next to differences in function (e.g., sorting things you eat and things that you wear).

## Communication Strategies

Children with multiple and complex needs may be nonverbal and use idiosyncratic or subtle signals that may be difficult to recognize and interpret. They often require systematic intervention to develop and expand their communication skills. To begin planning interventions, teachers and speech-language pathologists might assess the child's communication using an appropriate tool such as the Communication Matrix (Rowland, 2004). This field-tested assessment was designed for children at the earliest stages of communication and who use any form of communication. The matrix has been used widely with children who have sensory impairments and multiple disabilities. It provides a means for identifying a child's early communicative functions (refusing, requesting, engaging in social interactions, or seeking information) and communication levels (preintentional behaviors, intentional behaviors, unconventional presymbolic communication, conventional presymbolic communication, concrete symbols, abstract symbols, and language-combining symbols). An online version of the Communication Matrix is available at www.communicationmatrix.org and is currently free of charge.

Another communication tool that has also been field-tested with young children with multiple disabilities and sensory impairments is Promoting Learning through Active Interaction (PLAI) (Klein, Chen, & Haney, 2000). This guide provides a step-by-step sequence for supporting the child's communication development and a format for conversations and collaboration between families and teachers. These PLAI strategies have been found to be effective in promoting early communication development of young children who have sensory impairments, multiple disabilities, and other complex needs (Chen, Klein, & Haney, 2007; Chen, Klein, & Minor, 2008):

1. **Interpret the child's signals.** Carefully observe the child's behaviors to figure out how he or she expresses attention, interests, needs, and desires. Review the child's reactions and nonverbal communication during the daily routine and identify when the child seems alert. This way, teachers and parents may be able to identify, interpret, and respond to the child's subtle and sometimes puzzling signals.

2. **Identify the child's preferences.** Once the child's repertoire of communicative behaviors has been recognized, the child's preferences should be identified to motivate interactions and communicative initiations. Observe the child's responses to different people, objects, and activities. What does the child seem to prefer and what does he or she seem to dislike? What are the characteristics of selected preferences? These characteristics may be used to scaffold the child's participation in low preference activities and to promote a range of developmental skills. For example, Amy dislikes table activities and prefers to sprinkle sand in the sandbox or beans in the tub. The teacher might develop a craft project that involves sprinkling colored sand (either with fingers or in a salt shaker) on contact paper or gluing beans on cardboard to encourage Amy's participation at a table and her fine motor skills.

3. **Establish predictable routines.** All children benefit from repeated and predictable daily activities. Predictable routines are essential for children with medical and health concerns. Ask parents about daily activities that occur in a consistent order. For example, what happens before and after dinner? As shown in Exhibits 5.4 and 5.5, discipline specific interventions may be embedded within these natural learning opportunities.

4. **Provide anticipatory cues.** Once specific routines are established, selected cues may be used to help children develop anticipation and confidence in everyday activities. Cues are the consistent use of specific words or sounds along with selected objects, visual, or physical stimuli—depending on the child's sensory abilities—just before beginning the activity. They should be associated with the activity so the child can understand what they represent. For example, for a preschooler who is blind and nonverbal, immediately before bath time, the parent gives the child the rubber duck that communicates "Bath time" because the child plays with that toy in the bathtub. At school, just before recess, the teacher gives the child a piece of plastic rope that communicates "Let's go to the swing" because the swing is suspended by plastic ropes and the child holds on to them.

5. **Develop turn-taking games.** One way to develop early back-and-forth interactions is to wait for the child to vocalize (or do an action, e.g., clap, roll a car), and when the child pauses, imitate the vocalizations (or actions), and then pause for the child to take a turn. Children learn to imitate vocalizations and actions that are within their repertoire before they can imitate novel or unfamiliar sounds and actions. You can also take a turn by vocalizing or speaking when the child pauses in an action. For example, when a child shakes a maraca and then pauses, you could take a turn by saying, "Shake, shake, shake" and then pause for the child to shake the maraca.

6. **Encourage the child's communicative *initiations*.** Once a child actively participates in preferred activities, you can use a *pause-and-wait* or *interrupted routine* strategy to motivate the child's initiation to request for more of the activity. For example, push the child three times on the swing and then stop. Pause, and wait for the child to indicate a request for you to push the swing some more by wiggling legs or saying or signing "more." If needed, model the request or help the child make the sign to shape the child's communicative behaviors. The teacher can also support the development of true initiation by simply delaying the beginning of an expected routine. For example, the teacher helps Hana get seated at the lunch table, places an empty bowl in front of her, then walks away, and waits. Because this is a familiar routine, Hana begins to be aware of the delay. She looks around for her teacher and vocalizes. This is a true communicative initiation. Even better, *it is unprompted.* If the teacher responds immediately to Hana's communication by bringing her favorite food or drink and saying, "Oh I see you're really hungry today!" there is a good chance Hana will learn a very useful skill of initiating a request.

## TIPS FOR PROMOTING CHILDREN'S PARTICIPATION IN THE CLASSROOM

This section provides a list of tips for implementing simple adaptations that are consistent with the principles of universal design for learning (UDL) to provide multiple means of representation, expression, and engagement. See Chapter 4 for a description of these components of UDL that are intended to support participation of all children.

### Art Area

- If a child still puts things in his or her mouth, be sure to monitor the handling of small objects that may be choking hazards.
- Select activities that emphasize process rather than product and allow the child to create his or her own unique work of art.
- Choose activities that invite children's participation at varying developmental levels and sensory abilities (e.g., collage making, scribbling, painting, using clay or play dough).
- Provide a variety of painting utensils (e.g., gloves, sponges, squirt bottles, rollers, toothbrush) that are easy for children to manipulate and use.
- Vary the position of surfaces to paint on (e.g., sidewalk, wall, easel, table, slant board) to fit the child's positioning needs and motor abilities.
- Support verbal instructions with demonstrations using materials and pictures so that the message is easy to understand.