Evidence-Based Practices for Promoting Literacy Development of Infants, Toddlers, and Preschoolers

Adaptations for Children with Disabilities

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This is CELL's early literacy learning model. As you can see, the model includes five inter-related components including literacy-rich environments, child interests, everyday literacy activities, responsive teaching, and early literacy outcome indicators. The model also includes how adaptations can be made so that practices can be implemented with children with disabilities, developmental delays, or other special learning needs. These important components are the foundation for all of the early literacy practices found in the CELL practice guides that are located on our website at www.earlyliteracylearning.org.

The components of the early literacy learning model are displayed in an overlapping fashion because of the difficulty of separating them from each other in theory or in practice. We want you to understand that each component is important, but that early literacy learning results from an interrelated mix of these components in the context of your interactions with children. None of the components works independently of the others.
Review of Literacy-Rich Environments

- Contexts in which children engage in interest-based everyday literacy activities provided by responsive adults
- All interactions with children occur in the context of the physical environment

Review of Literacy-Rich Environments

The literacy-rich environment is the context in which children engage in interest-based everyday literacy activities provided by responsive adults. All interactions with children occur in the greater context of the physical environment. This involves the availability and arrangement of materials as well as print and oral language availability in the environment.
Review of Child Interests

- All children have interests.
- Some interests are personal interests.
- Some interests are situational interests.

Review of Child Interests

All children have interests. Some interests are personal and some are situational. We should follow a child’s interests to shape the early literacy activities we use with him or her because a child’s interests form the basis of their learning.
Review of Child Interests

- Children’s interests form the basis of their learning.
- CELL’s cycle of mastery describes that the more children engage in an activity the more competent they become, which over time and practice leads to mastery.
- Child interests are the catalyst for learning opportunities and the cycle of mastery for every child.
Review of Everyday Literacy Activities

- They provide opportunities for early literacy learning.
- They happen in everyday situations, whether planned or unplanned.
- They provide functional use of literacy.

Everyday literacy activities provide numerous opportunities for early literacy learning in everyday planned and unplanned situations. Everyday literacy activities provide children with functional use of literacy.
The following are some of the everyday literacy learning opportunities or activities in which an adaptation may be necessary to support participation. This is by no means an exhaustive list. It’s important to recognize the everyday learning opportunities for children with disabilities that also involve everyday routines. Some of these routines could provide the greatest learning opportunities if accompanied by the appropriate adaptation.

**Home Environment**
- Family Mealtime
- Grocery Shopping
- Bath Time

**Classroom Environment**
- Meals and Snacks
- Play Time in Learning Centers
- Nap Time Routine
- Music and Movement Activities

- Playing Indoors
- Playing Outdoors
- Bedtime Routine
- Group Time/Stories
- Arrival/Departure

**Arrival/Departure**
Review of Responsive Teaching

- Responsive teaching is the “just right” amount of support for young children to gain competence in and to master early literacy skills.

- It involves adults paying attention to and responding to children, introducing new information, and supporting and encouraging new child behavior.

Review of Responsive Teaching

Within the context of interest-based everyday literacy activities, adults must provide the “just right” amount of support for young children to gain competence in and ultimately master early literacy skills. We call this type of support responsive teaching.

It involves adults paying attention to and responding to children, introducing new information, and supporting and encouraging new child behavior.
Illustration: Early Literacy Learning Model

Watch the video *CELL Overview* which describes the components of the early literacy learning model.
Introduction: Adaptations

Modification or change made to an environment, activity, materials or interaction to maximize a child’s ability to participate in everyday interest-based learning opportunities.

Notice that the word “participate” is in italics. That is to emphasize that in the CELL model the reason to use an adaptation with a child is to increase their opportunity for participation in everyday interest-based activities. So keep the word Participation in mind as we explore adaptations.
Adaptations for Children with Disabilities

- Adaptations ensure that children with disabilities:
  - Can express their interests and have them interpreted correctly
  - Can engage in early literacy activities
  - Can become skillful and competent in early literacy activities and behaviors
  - Can master early literacy behaviors
- In other words, adaptations offer the necessary support so that children with disabilities can participate in activities at the greatest level possible

Introduction: Adaptations for Children with Disabilities

Adaptations are important because they ensure that a child with disabilities can express his interests and have them interpreted correctly. Adaptations help a child with disabilities engage in early literacy activities. Adaptations help ensure that any child can become skillful and competent in early literacy activities and behaviors. Finally, adaptations help a child with disabilities master early literacy behaviors.

It is important to note: If a child is already using special equipment or technology then it is appropriate to include this if it is necessary to enhance the child’s participation. However, when we discuss adaptations we are not talking about the act of teaching a child to use special equipment or technology. That is important, but not the focus of the work here in CELL.
Introduction: Adaptation Continuum

So now that we’ve reviewed how child interests relate to adaptations, let’s take another look at what we mean by adaptations using the Adaptation Continuum. This continuum is taken from Cara’s Kit, by Milbourne and Campbell. The continuum illustrates adaptations ranging from the least restrictive support for a child to the most restrictive support for a child.
Introduction: Environmental Adaptation

Modification made to the environment to ensure that a child can get to and participate in an activity independently.

An environmental adaptation is a modification made to the environment to ensure that a child can get to and participate in the activity independently.
A Literacy-Rich Environment provides a variety of literacy materials within the classroom or home environment. An environmental adaptation is taking that to another level, by observing individual children to ensure that all materials are indeed accessible to that individual child based on their abilities. The examples provided help illustrate this point. The first example illustrates moving books within a child’s reach. It’s not enough to buy books and put them on a shelf in the classroom. The adults must pay attention in order to determine that each child can access books. The adult may ask, “Are there any challenges for a child trying to access these books?” “Is Johnny able to access books independently?” Perhaps the child’s wheelchair prohibits access to the books.

It is helpful to ask, “To what extent does this environment encourage independent exploration for all children, especially children with disabilities?”
Illustration: Adapting the Environment

Here is a photo example of “Providing a slant board for a child to use for writing and drawing”. There are several reasons providing a slant board to a child may be necessary. One reason may be that the child has limited fine motor ability, and therefore uses more of his arm to engage in scribble activities. This is common as children physically develop fine motor muscles. Or the child may still be developing hand eye coordination and benefit from the paper being held in place. There are also children with disabilities in which a slant board is a necessary adaptation in order to participate in drawing and writing activities.
Illustration: Adapting the Environment
An activity adaptation is selecting an activity based on child’s interests and adjusting the activity in ways necessary to ensure a child can participate in the activity independently.
Illustration: Activity Adaptation

Often times, an adaptation to an activity involves adding visual, kinesthetic, and auditory aids to support the child in *participating* in the activity or routine.

**Examples**

- Add movements to a song to keep an active child engaged.
- Add props to story time to help a child follow along and understand the story.
- The adult may ask, “What additional support might this child need in order to fully enjoy and participate in this activity?”

**Illustration: Activity Adaptation**

Often times, an adaptation to an activity involves adding visual, kinesthetic, and auditory aids to support the child in *participating* in the activity or routine.

**Example**

Add movements to the song to keep the active child engaged
Add props to story time to help a child follow along and understand the story

By adding props or movements to the story, the teacher is addressing different learning styles. Can you think of some other examples of activity adaptations?

The adult may ask, “What additional support might this child need in order to fully enjoy and participate in this activity?”
Illustration: Adapting the Activity

Here a teacher has given the children small stuffed animals that are represented in the story to help them follow along and understand the story. For some children, sitting for 10 minutes to listen to a story may present some challenges associated with attention and engagement. By adding props, all of the children are able to participate in shared reading in an active way.
Illustration: Adapting the Activity
Illustration: Adapting the Activity

This adult is using the emotions chart as a visual aid when facilitating a discussion with the children on emotions and feelings. The poster fosters more active participation in the activity, which is discussing feelings.
Illustration:
Adapting the Activity
Practice: Activity Adaptation

Scenario:
You work with a child who loves music. The child is able to move her arms freely, but is unable to hold a musical instrument.

Identify an appropriate activity adaptation to support this child’s participation in music.
Evaluate: Activity Adaptation

- Where on the adaptation continuum is the adaptation that you provided?
- Was the child’s ability to participate increased?
Reflection: Activity Adaptation

How could this adaptation be used to develop mastery of a literacy-related skill?
Introduction: Material Adaptation

Making modification to a material needed in the activity in order for a child to easily manipulate or use the material, enhancing his/her participation in the activity.
Illustration: Material Adaptation

Example
- Using large-grip pencils to draw a picture
- Providing child-sized utensils in order to feed oneself
- Placing non-slip shelf liner under a bowl or plate in order to help a child feed herself independently
- Taping paper to the table so it won’t slide and the child is able to write and draw independently.

The adult may ask, “Is there anything that could be done to this item in order to support the child’s exploration or participation in the activity?”

Illustration: Material Adaptation

Some examples include: using large grip pencils to draw a picture, providing child-sized utensils in order to feed oneself, placing non-slip shelf liner under a bowl or plate in order to help a child feed herself independently, or taping paper to the table so that the paper won’t slide and the child can write and draw independently.

Can you identify some material adaptations you have used or seen used with children?

The adult may ask, “Is there anything that could be done to this item in order to support the child’s exploration or participation in the activity?”
Illustration: Adapting the Materials

This picture shows a child that has had difficulty grasping a regular sized crayon. She is then given a crayon that has been placed inside a sponge hair curler to make it thicker and easier to grasp. Does this picture suggest that the adaptation to the crayon was successful?
Illustration:
Adapting the Materials
Illustration:
Adapting the Materials
Practice: Material Adaptation

Identify an adaptation for a child who is unable to turn the pages of a book while reading with her mother.
Evaluate: Material Adaptation

Was the child able to participate at a greater level in the activity with the adaptation?
Reflection: Material Adaptation

How would this adaptation allow for increased social interaction during a shared reading activity?
Introduction: Instructional Adaptation

The adult modifies or adjusts their instruction and requirements based on the individual child so the child can participate in the activity as completely and independently as possible.

A few ways the adult may do this are by reducing the steps of the activity or by extending the length of time in which the child is expected to perform an activity.
**Illustration: Instructional Adaptation**

**Examples**
- Waiting and allowing the child enough time to respond before providing more adaptations
- Adding pictures along with print to represent the verbal instruction
- Allowing a child to stand during an activity rather than sit

The adult may ask, “Have I given this child an adequate amount of time to complete this task? Have I required too many steps in order to participate in the activity?

Can you think of any additional examples of adapting instruction for an activity?

The adult may ask, “Have I given this child the adequate amount of time to complete this task? Have I required too many steps in order to participate in the activity?”
Illustration: Adapting Instruction

This could be an instructional adaptation if the adult is waiting for the child to respond before providing additional support.
Illustration: Adapting Instruction
Practice: Instructional Adaptation

- Create a literacy-related instructional adaptation for making play dough.
- In other words, how would you adapt your instruction for making play dough so that every child may participate?

Practice: Instruction Adaptation

Create a literacy related instructional adaptation for making playdough. In other words how would you adapt your instruction for making playdough so that any child may participate.
Evaluate: Instructional Adaptation

- Did the adaptation increase the child’s participation in the activity of playing with play dough? If so, how?
- Where on the continuum is this adaptation?
Reflection: Instruction Adaptation

Would this adaptation increase interaction and participation during the activity of playing with play dough?
The terms used in describing adaptations can often be confused. For instance, an adaptation to the activity can often be misunderstood as an adaptation to instruction and vice versa.

Remember:

**Adaptation to an Activity**—selecting an activity based on child’s interests and adjusting the activity in ways necessary to ensure a child can participate in the activity independently.

**Adaptation to Instruction**—the adult modifies or adjusts their instruction and requirements based on the individual child so the child can participate in the activity as completely and independently as possible.
Activity Vs. Instruction

Example

Activity—A teacher provides her class with stuffed animals that represent the characters in a story, in order to support their participation in shared reading. By offering visual and kinesthetic support, the children are more active participants.

Instruction—By allowing Johnny to stand rather than sit during the shared reading time, Johnny is able to remain engaged and active in the activity.
Introduction: Provide Assistance

Providing Assistance is either an adult or peer providing physical assistance or doing the activity for the child.

In Cara’s Kit, Milbourne and Campbell state, “Provide assistance only when other adaptations have not worked, and only as a last resort.”

Why do you think this is important?

Source: Cara’s Kit, Milbourne & Campbell, 2007
Illustration: Provide Assistance

Examples

- Providing hand-over-hand support
- Modeling for the child how to do something such as how to draw the letter “C” and then asking him/her to draw the letter “C” the same way
- Peer intervention where a peer models for the child or provides some kind of physical assistance

Can you think of times where it was absolutely necessary to provide assistance? Can you identify times when it may not have been the most appropriate adaptation?
Illustration: Provide Assistance

Here the caregiver is providing hand-over-hand support to assist this child with playing the drum.
Adaptations: What To Consider?

Before you can decide what adaptation may be necessary for a child, there are some questions you must ask yourself. Have you observed the child and determined the following: “What are the child’s interests?” “What are the child’s abilities?” “How is the child currently participating in an activity?” “How could the child be more involved?”

The next questions to ask are, “How will the adaptation enhance the child’s ability to participate in the activity?” “How will the adaptation be implemented?” “Does there need to be an additional adaptation?” “Could this adaptation be generalized to other activities or routines?”

Adaptations: What to Consider?

Before you can decide what adaptation may be necessary for a child, there are some questions you must ask yourself. Have you observed the child and determined the following: “What are the child’s interests?” “What are the child’s abilities?” “How is the child currently participating in the activity?” “How could the child be more engaged in the activity?” The next questions to ask are, “How will the adaptation enhance the child’s ability to participate in the activity?” “How will the adaptation be implemented?” There has to be a reason for providing an adaptation. Often times adults overwhelm a child with adaptations just for the sake of providing an adaptation. It may or may not actually serve a purpose for that particular child. i.e. You write the same IEP goal including the same adaptation for every child diagnosed with cerebral palsy. You fail to consider the individual child’s interests, abilities and current level of participation.

Once you have implemented the adaptation it is crucial to observe the child. Based on observation of the child, the adult determines if the child is participating in the activity to the level that was intended. Was the adaptation successful? If not, then the adult may need to consider if an additional adaptation is necessary. Or it may be that the way in which it was implemented proved to be ineffective, rather than the adaptation itself. By asking yourself these questions, you will know if you need to start over using another adaptation, or if you need to provide an additional adaptation.

Here’s a tip: All of these questions can easily be answered if you use Responsive Teaching.
Identifying Levels of Participation

- The Classroom Interest Tool or the Interest-Based Everyday Literacy Activity Checklist
- Responsive Teaching

Identifying Levels of Participation

In the Early Literacy Learning Model, we identify Everyday Literacy Activities & Learning Opportunities. These are usually daily activities and routines that occur in a child’s natural environment. When identifying Everyday Literacy Activities, the adult must also consider each individual child to determine their level of participation. You may already be familiar with the CELL Classroom Interest Tool or the CELL Interest-Based Everyday Literacy Activity Checklist to help identify a child's interest. When completing this tool, you may also ask yourself to what extent the child is participating in the interest-based activity. Could the child be more involved? How so?

Responsive teaching will help guide an adult in determining if an adaptation is necessary and which one to use.
Practice: Adaptation

Looking at the photo on the following slide (Exploring Water) answer the following questions:

- Ask yourself: To what extent is the child currently participating in the activity? In what ways could they be more involved?

- Based on your answer above, which of the following adaptations would provide this child the most opportunity for participation with the least restriction—environment, activity, materials, instruction?

Ask yourself to what extent is the child currently participating in an activity, and in what ways could they be more involved?

Based on your answer above, which of the following adaptations would provide this child the most opportunity for participation with the least restriction? Environment, activity, materials, instruction
Exploring Water

Ask yourself to what extent is the child currently participating in an activity, and in what ways could they be more involved?

Based on your answer above, which of the following adaptations would provide this child the most opportunity for participation with the least restriction? Environment, activity, materials, instruction
Evaluate: Adaptation

- Were the questions you asked before choosing an adaptation helpful? How?
- How will the adaptation enhance the child’s ability to participate in the activity?
- Was there need for an additional adaptation? Why?
- How difficult was it to make the adaptation?

Evaluate: Adaptation

You will probably hear comments from participants about the difficulty of this assignment since there is no information about this child. That’s the point of this practice- to demonstrate the significance of knowing the child before you begin creating adaptations. By being a responsive adult, you pay attention and discover the child’s interests, respond promptly to their needs or their behaviors. This would certainly help guide you in determining a child’s level of participation and any needs the child may have.
Looking at the photo on the next slide, write a scenario. In the scenario, list any important facts about the children and environment that may be important in determining what adaptations should be made to support the literacy activity. Then answer the following questions.

- Ask yourself: To what extent are the children currently participating in the activity? In what ways could they be more involved?
- Based on your answer above, which of the following adaptations would provide this child the most opportunity for participation with the least restriction—environment, activity, materials, or instruction?
Practice: Using Adaptations

Write a scenario. In the scenario, list any important facts about the children and environment that may be important in determining what adaptations should be made to support the literacy activity. Then answer the following questions.

Ask yourself to what extent are the children currently participating in the activity, and in what ways could they be more involved?

Based on your answer above, which of the following adaptations would provide this child the most opportunity for participation with the least restriction? Environment, activity, materials, instruction
Evaluation: Using Adaptations

- Were the questions you asked before choosing an adaptation helpful? How?
- How will the adaptation enhance the child’s ability to participate in the activity?
- Was there need for an additional adaptation? Why?
- How difficult was it to make the adaptation?
Practice: Using Adaptations

Read the following scenario and then answer the questions on the following slides.

Child Description
Angelo is a four-year-old boy who attends a childcare center. Angelo loves any kind of sensory activity such as digging in the dirt and sand, or pouring water. He also loves music and musical instruments. Angelo has no head control and therefore is unable to sit up independently, but has a wheelchair that supports him. He can hold objects in his hands, with limited movement in his arms.

Activity—Outdoor Play
Angelo’s teachers push him in a single stroller onto the playground so that he can watch the other children play. Angelo does not participate in any play outdoors.

Outdoor Playground Description
The playground has a dolphin swing that allows a child to lie back and swing. There are grass, concrete, and mulch ground coverings. The playground has a shaded sandbox with sand toys. Some toddler riding toys, such as a car, are also available.
Practice: Using Adaptations

- Ask yourself: To what extent is Angelo currently participating in the activity? In what ways could he be more involved?

- Based on your answer above, which of the following adaptations would provide Angelo the most opportunity for participation with the least restriction—environment, activity, materials, instruction?
Evaluation: Using Adaptations

- How did you decide whether an adaptation was necessary?
- Was the adaptation based on the child’s interest? How did you determine the child’s interest?
- How will the adaptation enhance Angelo’s ability to actively participate in the activity?
- Did you need to provide any additional adaptation?
- Could the adaptation be generalized to other activities or routines?
- How difficult was it to make adaptations? Why?

Evaluation: Using Adaptations

I hope that you can see from these practices that the more responsive you are with a child, the more information you will have to determine the child’s level of participation. So I would challenge each of you when you leave here today to try and practice this with a real child or children. Observe the child, being a responsive adult identify the child’s level of participation and if they could be more involved in the activity.
Bringing It Together

- **Child Interests** are the catalyst for learning opportunities and Cycle of Mastery for every child.

- **Participation** is the main focus when considering adaptations for a child with disabilities or special needs.

- **Adaptations** may be necessary to maximize a child’s ability to participate.
More Practice: Adaptation

Can you name the adaptations being provided?

Can you think of additional adaptations that could or should be provided?

More Practice: Adaptation

More photos that include different types of activities. Can you name the adaptations being provided? Can you think of additional adaptations that could or should be provided?
This is an environmental adaptation because this child is immobile and yet the toy that he loves has been placed at his feet so that he can start it by himself.
If you added a green sticker to the play button and a red sticker to the stop button, you would have created a material adaptation. This adaptation along with verbal instruction could assist a child in independently manipulating the CD player.
The teacher instructs the children to clean up daily. The teacher shows the children that labels including the word and picture of the item have been placed onto the shelf where the item belongs. This assists the children with identifying where the toy belongs. This is an instructional adaptation.

An extra benefit of this adaptation is that it exposes all of the children to print and demonstrates that print has meaning.
This mom has provided a material adaptation by placing the soft therapy seat inside of the wagon in order to support her daughter in riding in the wagon independently.
The teacher has provided a material adaptation by offering this little girl a puzzle with knobs based on her individual fine motor abilities and interests.
The wedge is an environmental adaptation that supports the little boy in participating in the writing activity with his mother.
Here is another example of an environmental adaptation, in which these toys of interest have been placed under the child’s hands so that he can start and stop them on his own.
If you think about it, we use environmental adaptations a lot with infants by placing things of interest within their reach. Here a father has placed a non-traditional book in his daughter's view so that she can explore it independently.
If you think about it, we use environmental adaptations a lot with infants by placing things of interest within their reach. Here a father has placed a non-traditional book in his daughter's view so that she can explore it independently.