



presenter's notes

embedded learning opportunities

Materials Needed:

- Presenter's PowerPoint
- Projector and audio equipment
- Participant's handout/Notes pages



Embedded Learning Opportunities

Hello and thanks for joining us today for Head Start Center for Inclusion's training on Embedded Learning Opportunities. This is one of the training modules in our series. *(Give participants background information on yourself and also poll the audience to see who is attending—if it is a small group, you can ask them a question related to inclusion as you have them introduce themselves—also get any housekeeping items out of the way...bathrooms, when you will be taking a break)*



HSCI Framework

Here you see the Head Start Center for Inclusion's framework. Today we will talk about how to use embedded learning opportunities to create teachable moments within ongoing classroom activities, routines, and transitions. Embedded learning opportunities are ways to provide special instruction and support to young children with disabilities during everyday learning activities. Providing embedded learning opportunities is a recommended and evidence-based practice in early childhood.



Objectives

In this presentation, you will meet Mia and see how her team plans for embedded learning opportunities, or ELOs for short, to support her learning. After the presentation is over, we hope that you will know what embedded learning opportunities look like and understand how they can be used to take advantage of teachable moments.

Slide 4**How do we create Embedded Learning Opportunities?**

First, what are embedded learning opportunities? When we create embedded learning opportunities, we provide targeted instruction, or specialized instruction, to a child who needs support. Creating embedded learning opportunities involves planning to teach in a way that promotes child learning and engagement during everyday learning opportunities, such as during activities, routines, and transitions.

To use this approach, teachers, other team members, and families work together to identify what the child knows or can do, and what the child needs to learn or do in order to participate meaningfully throughout the day. Team members and families plan for targeted instruction to help the child learn in specific activities, routines, and transitions.

Slide 5**Key Features of Embedded Learning Opportunities**

Key features of embedded learning opportunities were identified in the literature we reviewed. Practitioners who implement embedded learning opportunities:

- Address skills that are important to everyday activities. Practitioners use an embedded learning opportunities approach to teach skills young children need to participate in an early learning classroom.
- Teach targeted skills to a child in activities alongside all children and in the contexts in which they are needed.
- Use “authentic” activities and materials to support learning.
- Use intentional and targeted short teaching interactions in addition to “discovery” learning.

Let's watch a few examples of teachers using an embedded learning opportunities during everyday activities and routines.

VIDEO: *Helping Children Learn in Everyday Activities*

Let's Take a Look

As you watch, think about how this approach to instruction is helping children learn during everyday activities. Think about what activity is occurring and what the teacher is doing that has been planned ahead of time.

(PLAY: *Helping Children Learn in Everyday Activities*)

In the video, you might have noticed that teachers were able to provide learning opportunities to individual children within the context of their everyday activities and routines.

Now that I've introduced embedded learning opportunities and you've seen examples of what they might look like in a classroom, let's meet a little girl named Mia. We will follow along with Mia's team as they try out this approach.

Slide 6**video 1**

Slide 7

Meet Mia

Mia is a 4-year-old who attends her local Head Start program and her teacher is Ms. Mary. Most of Ms. Mary's children are making good progress toward mastering Head Start's performance standards. Ms. Mary is very pleased with the growth they have demonstrated so far this year. Mia is the one exception. Ms. Mary has tried everything she can think of to help move Mia forward. Mia's parents also feel 'stuck' and are interested in finding out what they can do to support Mia at home. Ms. Mary decides to have a meeting with Mia's IEP team and hopes they will have ideas for helping Mia make progress.

At the team meeting, Ms. Mary shares that currently she sets aside 10 to 15 minutes each day to work individually with Mia on her IEP objectives. In addition, Clara, the speech-language therapist, noted that she works 30 minutes, 2 times per week, one-on-one with Mia in her therapy room just down the hall. Despite this time set aside for instruction, Mia has not made progress on many of her IEP objectives. In fact, Mia does not seem to prefer the one-on-one time. For example, she often pushes away the blocks that Ms. Mary asks her to play with or refuses to name the picture cards Clara shows her during speech therapy. Mia's parents comment that she seems happiest and most engaged when she spends time with her cousins and friends.

Gloria, the occupational therapist, suggests that the team try a new approach to help move Mia forward. She says they need a way to increase Mia's learning opportunities. Gloria suggests the team, including Mia's family, focus on identifying what skills Mia needs to be engaged and to participate in everyday activities. She suggests the team think about planning to give Mia the opportunity to practice these skills throughout the day. The team likes this idea and wants to learn more. They decide to try this approach in hopes that it will help keep Mia on track at home and at school by making the best of her everyday learning opportunities. As they move forward creating embedded learning opportunities, they first want to consider **what to teach, when to teach, and how to teach** Mia.

Slide 8

Three Steps

As we follow along with Mia's team, we will see that providing embedded learning opportunities involves three interrelated steps: (a) planning, (b) implementing, and (c) evaluating. You will learn how to plan for embedded learning opportunities, how to implement embedded learning opportunities in your classroom, and how to evaluate if the teaching is working.

Slide 9

Embedded Learning Opportunities

As we learn about planning, implementing, and evaluating embedded instruction, we will watch Mia's team consider **what to teach, when to teach, and how to teach**.

First, they will consider **what** to teach. The team needs to work together to decide what skills are important for Mia to learn right now that will help her be more engaged, participative, and independent in classroom activities and routines. What skills are most important for them to target for learning? They might look to Mia's IEP goals or use what they know from observing her to decide what skills are most important for her to learn. They will call these short-term, and "right now" targets, Mia's learning targets.

Next they will consider **when** during the day provides the best opportunity to teach these skills.

Last, they will think about **how** to teach. How will they structure Mia's learning opportunities?

Slide 10

What to Teach: Identifying Learning Objectives

Let's begin with **what to teach**. Mia's team will work together to decide what is most important for Mia to learn "right now" and to develop learning objectives.

Slide 11

Learning Objectives

What is a learning objective? We use the term learning objective because we want you to think about what you want to teach right now (and consequently what you want the child to learn). Learning objectives are based on content that will help children participate in everyday activities. When we develop learning objectives, we include information that will help plan for embedded learning opportunities. Learning objectives focus on skills that the child needs to learn "right now" to make progress on larger goals or objectives. Finally, a learning objective is a behavioral objective that states how the child will respond, or what behavior we want the child to do.

Slide 12

Identifying Learning Objectives

We can use a variety of resources to help us to develop learning objectives. We might look at the child's IEP, their ILP, our classroom curricula, state standards, or benchmarks. We want to include family input, our own knowledge of child development and learning, and what we observe of the child's behavior in our classroom.

Slide 13

Mia's IEP Goal

The team decides to start off their conversation about what to teach by looking at Mia's IEP goals. Here you see one of Mia's goals as written on the IEP, but the team realizes this goal does not match where Mia is right now. Sometimes IEP goals are written so that they are not immediately teachable; that is, they might be "too big" and need to be broken down into smaller, teachable parts. Let's look at this goal: "During routine classroom activities, **Mia will produce 3-word phrases.** Mia will use 3-word phrases on 6 occasions during a language sample collected over 2 data collection days." The team considers that, right now, Mia currently has a vocabulary of about 100 words. She is just beginning to use single words and rarely uses 2-word phrases. They know that Mia's IEP goal does not reflect where she is "right now" in terms of her language use.

The team wants to break down this larger IEP goal of using 3 words to meet Mia at her current skill level. By breaking down a larger goal into smaller steps, we can tackle the "IEP goal or objective is just too big" dilemma by making a goal smaller and more manageable. Let's see how Mia's team created a teachable, "right now," learning objective.

Slide 14

Identifying a Learning Objective for Mia

The team decides that to support Mia at where she is right now, they want her to work on using one to two words to express her needs or wants. They decide this learning objective will help her move toward her larger goal on her IEP. After Mia meets this learning objective, the team will plan for a next learning objective to support the larger IEP goal. As Mia accomplishes or masters these smaller steps, she will be making progress toward her larger goal.

Slide 15

When to Teach: Activities, Routines, and Transitions

Mia's team has decided **what** to teach— They thought about what they want to teach Mia so that she is more participatory, engaged, and independent. Now it makes sense for them to think about **when** to teach Mia. The team will begin to think about good times during the day to provide instruction.

For example, for the learning objective we just looked at, Mia's team asks— During what activities throughout the day is Mia most likely to use her words to express her needs or wants? Ms. Mary suggests snack time might be one good time to teach Mia to use her words. Snack time presents a logical and authentic teaching opportunity. The team also considers what time of the day there are enough adults available to support embedded learning opportunities. They decide to take a closer look at Mia's schedule in order to think more about when to teach.

Slide 16

Helping Children Learn in Everyday Activities

Ms. Mary has a daily schedule that provides the framework for all the activities, routines, and transitions that occur throughout the day. Children learn best when they know what to expect each day in the classroom and when there is some predictability. It is best when the schedule is visible for children and staff to see. The scheduled activities should demonstrate a balance between structured and unstructured, sitting and moving. For example, the day can start with an arrival routine that is followed by circle time that brings the whole class together as a group for a few minutes. This might lead to center time or free play where the children are able to make more choices and manage their own time — sometimes with help from adults, such as when adults help children choose centers or free-play activities.

Within each scheduled activity, several different activities might occur that provide children with opportunities to learn and provide Ms. Mary and her team with opportunities to teach learning objectives. Mia's team looks at her daily schedule and thinks about activities that would be good times for instruction. They consider how the activities, routines, and transitions provide learning opportunities for Mia on her priority learning objectives. For example, the team brainstorms that free play, snack, lunch, and center time and will be great opportunities for them to support Mia's use of one or two words because they present natural teaching opportunities.

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Fit between Learning Objective and Activity, Routine, or Transition

This puzzle piece represents the importance of the fit between the learning objective and the activity, routine, or transition. As the team plans **when** to teach Mia's learning objectives, they consider what activities, routines, and transitions will be the most natural and logical times for teaching. It is important that the learning objective fits with the characteristics and demands of the activity. When thinking about activity characteristics or demands, think about what **all** children need to do in order to participate.

Slide 18

Selecting Times and Activities

Now that Mia's team has considered natural and logical times to create embedded learning opportunities, a big challenge is to plan for sufficient learning trials to occur in the classroom. They need to plan for individual children and, at the same time, keep track of the rest of the children and the adults and resources that are available to us. In the next series of slides, you'll learn how to use an Activity Matrix. A matrix helps you think about when and where you will create embedded learning opportunities for important learning objectives.

An activity matrix is helpful because it reminds the teachers of:

- (1) The planned activities
- (2) Individualized learning targets for children who need targeted and intentional learning opportunities
- (3) Times of day to embed learning opportunities

Slide 19**Making an Activity Matrix**

To make a useful activity matrix, we must begin with a predictable, balanced classroom schedule.

Once you have your schedule, you can then turn it into an activity matrix. In its simplest format, an activity matrix has the activities listed in the left column, and the children's names across the top. You see the classroom schedule listed in the left-hand column of the matrix. Then there are two columns on the right for the children who need intentional and targeted embedded learning opportunities, Mia and Matthew.

You might notice that this example puts transitions at the bottom of the matrix. Actually, there are many transitions during the preschool day. For planning purposes, this is the spot where teachers can insert their planned transition-based instruction.

Slide 20**Activity Matrix for Mia**

Here you see the matrix the team developed for Mia using her learning objectives. They have Mia's name at the top, the schedule of activities down the left column and the individual learning objectives for instruction are placed inside the boxes. We see that Mia has several opportunities throughout the day for instruction on her learning objectives. The team has created a plan for embedding learning opportunities on the same learning objective across different activities or routines.

Slide 21**Class Activity Matrix**

You can tailor an activity matrix to meet the needs of your classroom. Here is another example of an activity matrix a teacher is using in her class to plan for three children. As you saw with Mia's matrix, the activities go in the left column. Then all the names of the children in the classroom, or at least all of the children with IEPs, or individual needs go across the top. This teacher is using sticky notes to show how she plans provide embedded learning opportunities for each child during the activity, as well as how many opportunities she plans to provide at that time. The activity matrix is a working document that can change as the needs of the children and of the staff change.

Remember, when creating an activity matrix it is important to match or ensure the "fit" of the learning objective to the activity, consider natural occasions in which the behavior occurs, think about the number of staff available, and consider how many opportunities the child will need for practice.

An activity matrix is an important tool for the team to use when planning for embedded learning opportunities. There is a print-and-go that accompanies this module that has activity matrices you might use in your classroom.

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A Well-Planned Activity Matrix

Filling out a matrix can be challenging as many considerations come into play. However, one of the nice things is that a matrix is a working document and can and should be fluid, that is, it changes as the needs of the children and staff change.

Remember, when you are creating your activity matrix:

- 1) Match the child's learning objective to the activities — What is the most logical activity for embedding? For example, if a child has a learning objective to put on their coat, the most natural or logical activity would be preparing to go outside or preparing to go home [departure].
- 2) Consider natural locations in which behavior occurs — Where are you most likely to see this behavior occur? If the child has an learning objective to request preferred items from an adult, requesting behaviors might be likely to occur during snack, center activities, and outdoor play.
- 3) Evaluate available staff during activities reflected on the daily schedule — Some activities in preschool demand more adult support than others. Consider the availability of staff during each activity to provide instruction, not just supervision.
- 4) Identify the number of opportunities needed for practice — Consider the child and their history of learning. How many opportunities do you need to provide for the child to have adequate practice with the learning objective? Also, think about how you will provide learning opportunities across the day.

Slide 23

How to Teach: Planned Instructional Sequences

We've talked about **what** to teach — learning objectives that match where the child is right now, and **when** to teach — during activities that provide logical and authentic learning opportunities. Now we will talk about **how** to teach. Earlier you heard that embedded learning opportunities involve targeted instructional support for a child's learning objective. Now we will think about **how** teachers provide this support by thinking about Planned Instructional Sequences, or PInS. We have a module on Planned Instructional Sequences that provides many examples of how teachers can create and use PInS, so we will only go over this teaching strategy briefly here. We hope that if you have not yet reviewed the PInS module, that you will do so.

Slide 24

Planned Instructional Sequence (PInS)

What is a Planned Instructional Sequence, or PInS? PInS is a short teaching interaction that utilizes research-proven techniques to provide instruction. PInS can be used to teach any skill including communication, cognitive, motor, and social skills. PInS involves a specific sequence to initiate and follow up on teaching interactions.

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PinS: 4 Step Process

PinS is a 4 step process. When using PinS, the teacher plans ahead to teach a specific skill. She carefully identifies and plans for each of the following steps.

- 1) First some type of cue (or what you might sometimes hear called an “antecedent”) is provided to get the process started. These are often verbal cues (or something the teacher says), but children can also be cued by the environment, an activity, or even peers.
- 2) Next the teacher will provide some sort of help if the child needs it. This is the teaching part and is extremely important, especially in the beginning learning stages of a new skill.
- 3) The third step is the child response (or child behavior). The teacher will provide enough time for the child to respond after either the cue or after the help.
- 4) Lastly, the teacher will provide feedback (or a consequence) depending on the child's response. Correct and incorrect responses will elicit different feedback.

Slide 26

PinS for Mia

Let's look at an example of a Planned Instructional Sequence for Mia. Mia's team planned for her instruction on a learning objective during a small group activity.

Remember her learning objective stated, “Mia will use 1 to 2 words to express her needs or wants.”

Ms. Mary wanted Mia to ask for help, so she provided something in the environment that would set the occasion or cue Mia to ask for help. As a cue, Mia's teacher gave her a play-doh container with the lid still on. The behavior or desired child response is that Mia will say “help.” After Mia says help, Ms. Mary will provide her with assistance to open the container and give her praise for asking for help. This is the consequence or feedback linked to Mia's objective behavior.

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VIDEO: Mia's Everyday Learning Opportunities (Part 1) — PinS for Mia

Let's see it in action.

(PLAY: Mia's Everyday Learning Opportunities 1)

Here we saw a planned instructional sequence for Mia. Her teacher gave her the Play Doh with the lid still on. This set the occasion for the child behavior — for Mia to use 1 to 2 words to express her needs or wants. After Mia said, “Help,” her teacher gave her feedback. She said “Good saying help,” while she opened the Play Doh container for Mia.

Remember, there is plenty more information about using this instructional approach in our PinS module.



video 2

Slide 28

Three Key Questions for Evaluating Embedded Learning Opportunities

Remember that creating embedded learning opportunities involves three interrelated steps: (a) planning, (b) implementing, and (c) evaluating. Let's focus on three key questions to ask when evaluating embedded learning opportunities. When evaluating, we ask: (a) Am I doing it? (b) Is it working? and (c) Do I need to make changes?

Taken together, these questions provide a framework for data-based decision making. Let's start with **Am I doing it?** This is an initial question to ask. Ms. Mary will need to provide Mia with embedded learning opportunities if she wants her to make progress on her learning objectives. Ms. Mary will want to keep track of how many embedded learning opportunities she is providing to Mia.

Ms. Mary can answer the question **Is it working?**, by monitoring whether Mia is making progress on his or her learning objectives. She will want to collect data on how many times Mia is correctly using the behavior that is tied to the learning objective. One way to collect data is to use the same format as an activity matrix. There is a print-and-go that accompanies this suite that you can use to collect data on how many complete trials of PInS you provide, as well as how many times the child uses the correct behavior.

In the third step of evaluating, you decide if you need to make changes to your plan based on the data you collected to answer the questions **Am I doing it?** and **Is it working?**

Slide 29

Supporting Mia's Learning

Let's review Mia's story and how her team used embedded learning opportunities to help her make progress. In the past, Ms. Mary provided Mia with 10 to 15 minutes of daily one-on-one instruction and Mia left the classroom twice a week for thirty minutes to work with the speech language teacher. Mia was not making progress on her goals and she did not seem to prefer the one-on-one time.

As you saw, the team decided to try a new approach and decided to use embedded learning opportunities. They focused on identifying skills Mia needs to be engaged, participative, and independent in everyday activities. They considered what to teach — priority learning objectives. We saw an example of how they used one of Mia's IEP goals and broke it down into a smaller, teachable step.

They then considered when to teach — during Mia's everyday learning opportunities. They looked at Mia's classroom schedule and thought about activities, routines, and transitions that would be best for embedding opportunities to learn and practice.

The team also began to think about how to teach — using intentional and targeted instructional procedures. They began to use Planned Instructional Sequences (or PInS for short).

After just a few weeks of trying this new approach, Ms. Mary is pleased with the growth she is seeing in Mia. Let's look at one more video of the progress Mia has made in using her words to ask for help.

Slide 30

video 2

VIDEO: Mia's Everyday Learning Opportunities (Part 2) — Mia's Progress

Mia's team was working on teaching her to use 1 to 2 words to express her needs or wants. Let's watch a clip and see Mia's progress now that her team is using embedded learning opportunities.

(PLAY: Mia's Everyday Learning Opportunities 2)

Here you saw Mia asking her peer, "Bowl please." She has made progress in using her words to express her needs or wants. Ms. Mary, Mia's parents, and the rest of Mia's team are happy with the progress Mia has made and are pleased to see her moving forward again.

Slide 31**Embedded Learning Opportunities**

To wrap up today, let's review why it might be important to provide embedded learning opportunities in early learning settings for young children with disabilities.

Embedded learning opportunities help to meet a child's individualized learning needs with respect to their everyday routines and activities.

Embedded learning opportunities maximize children's motivation by considering their interests and preferences. Teachers, parents, and other team members work together to identify child interests and preferences.

Embedded learning opportunities provide opportunities for children to learn and practice important skills in **meaningful contexts**. Children learn and master skills in contexts where these skills are needed.

Research has shown that **all** young children benefit from high quality learning opportunities. For children with disabilities, it is particularly important to provide sufficient learning opportunities to promote and advance their learning and development.

Today we also saw Mia's team learn about what to teach — learning objectives; when to teach — in everyday learning activities, routines, and transitions, and how to teach — using intentional and targeted instruction. In our next presentation on embedded learning opportunities, you will learn more about what embedded learning opportunities might look at in the home.

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Material in this module adapted from "Impact of Professional Development on Preschool Teachers' Use of Embedded-Instruction Practices," a Goal 2 Development and Innovation research project funded by the Institute of Education Sciences and awarded to the University of Florida. Information and opinions expressed in the modules are those of the authors, not the Institute of Education Sciences. Permission to use and adapt these materials has been granted to the Head Start Center for Inclusion. Thanks to the preschool teachers, children, and families who helped evaluate these materials.

Slide 33**More Information**

For more information, see the materials that accompany this presentation for more tips, ideas, and checklists that can be helpful in planning, implementing, and evaluating embedded learning opportunities.

Thank you!