



COACHING TO SUPPORT EARLY MATH INSTRUCTION PRESENTER NOTES-OPTIONAL

Why Share Math Experiences?



- Sharing experiences and backgrounds should include understanding how the other person approaches math and why.
- Research shows the debilitating effect of math anxiety on adults and on the children they care for
- Education Staff with more math anxiety feel less confident their math ability
 - Teachers who are less confident in their math ability plan to teach less math and are less likely to use developmentally appropriate methods



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OPTIONAL SLIDE 1:

Notes for presenter:

- Read and elaborate on the bullet points.
- Tell participants that next we will practice an activity that coaches and teachers can do together.



Focused Observation Plan



- Take notes using a Focused Observation Form
- Other helpful tools include:
 - Video
 - Coaching supports

Teacher:		Coach:	
Date:	Time spent in observation:	Time spent in meeting:	
Observation focus:			
Tally number of children teacher did/did not take notes on:		•	
Tally number of children given/had opportunity to respond individually:			
Children's performance:			
Child	Is	Verbal Event?	Event?
1.			
2.			
3.			
4.			
5.			
Additional Notes:			
Follow-up needed:			

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OPTIONAL SLIDE 2:

Notes for presenter:

- Read bullets.
- Tell participants the Focused Observation Form is available on the ECLKC website.
- Tell participants we'll discuss a useful Coaching Support for delivering LT-aligned instruction on the next slide.

REFERENCES

National Center for Quality Teaching and Learning. 2015. *Component 2: Focused Observation*. Retrieved from: <https://eclkc.ohs.acf.hhs.gov/sites/default/files/pdf/psc-brief-fo.pdf>.





Scenario 1



While engaging in counting activities, some children appear not to know the number sequence. Others get mixed up in terms of what objects they've counted or skip objects. There are some children who can count accurately to 10. The teacher continues to have children count sets of 6 to 25.

How could you coach this staff member in terms of mathematics teaching/practices?



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OPTIONAL SLIDE 3:

Notes for presenter:

- Read the scenario and ask the question, “How could you coach this preschool teacher or family child care provider in terms of their mathematics teaching/practices?”
 - Give participants a few minutes to think about the scenario.
 - It may be necessary to re-focus participants so that their coaching suggestions focus on mathematics in particular. For example, according to the ELOF: “When counting objects, says or signs the number names in order, pairing one number word that corresponds with one object, up to at least 10.” And “Counts and answers “How many?” questions for approximately 10 objects.” (Goal P-Math 3 -Indicators by 60 months)
 - Tell participants we will walk through each part of the coaching cycle.
 - Ask participants to think about what sort of data the teacher or family child care provider should collect during this observation. What would the notes look like?





Scenario 1

Teacher: Leslie Smith		Coach: Aisha Williams			
Date: 2/19	Time spent in observation: 1.5 hrs	Time spent in meeting: 1 hr			
Observation focus: <i>determining children's level on the counting trajectory</i>					
Tally number of children teacher did/did not take notes on:					
Tally number of children given/not opportunity to respond individually:					
Children's performance:					
Child	#s	Verbal Count?	Count?	Produce?	Notes
1. Isabella	10		✓		
	6		✓		
	15		✓		
2. Liam	10		×		1-6, 8, 10, 9, 10
	6		✓		
	15		×		1-6, 8-10, 12, 14
3. Malik	10		×		Skipped 1 object
	6		✓		Skipped 5 double counted
	25		×		
4. Kayla	8		✓		
	9		✓		
	10		×		
Additional Notes:					

OPTIONAL SLIDE 4:

Notes for presenter:

- Explain the Focused Observation Form to coaches. Note:
 - This form can be completed in any number of contexts (e.g., free play—counting blocks in a tower, snack time—counting apple slices on the plate, etc.).
 - “Verbal count?” is “rote counting” just number names, “Count?” means counting objects, and “Produce?” means making a set of objects.
 - In the notes section, the coach has recorded errors in the number sequence for Liam, and errors in touching or tagging each object for Malik.
- Have participants discuss how this Focused Observation Form is similar or not to the notes they would take for this teacher.
- Ask participants to react to these notes.
- Ask participants what other information or notes would be helpful.
- What would be participants’ main notes for the teacher based on this Focused Observation Form?



Scenario 1

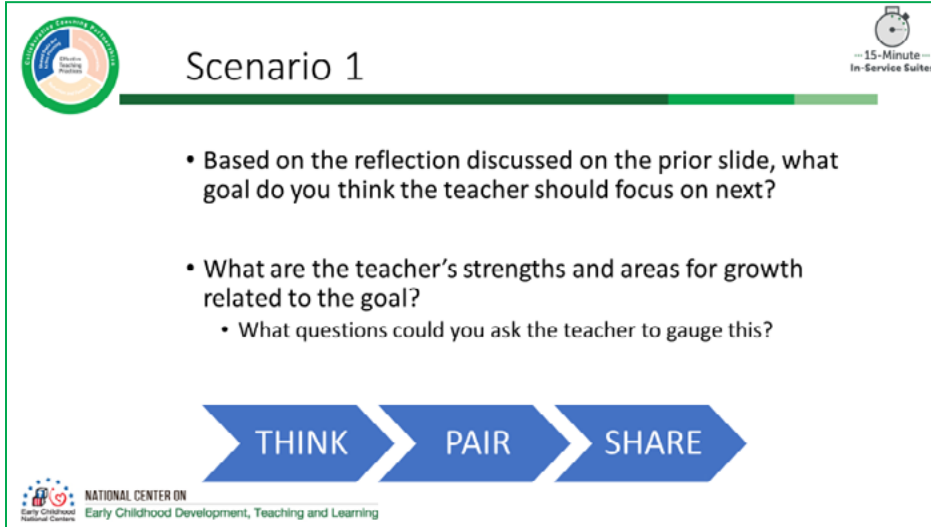
- What would you ask this teacher to promote reflection?
- What positive feedback could you give this teacher?
- How could the teacher translate her strengths into improving in other areas? How could you communicate this to the teacher?



OPTIONAL SLIDE 5:

Notes for presenter:

- Have participants think-pair-share their responses to the questions.
- For the first bullet, participants may share questions similar to the following examples, which were presented earlier in the presentation. Remind them of these questions if necessary.
 - What went well? How did the child/ren react or respond?
 - What went well? How did the parent(s)/caregiver(s) react or respond? How did their reaction support their child's developing sense of number and quantity?
 - What would you do differently next time you use this practice?
 - What do you hope the child/children/parent(s)/caregiver(s) will gain by using this practice? How will you know?
- For the second bullet, participants may share points similar to the following.
 - The teacher did well incorporating opportunities for counting and for children to view and describe their world mathematically.
 - The teacher did well providing most children the opportunity to try counting sets that were large enough to be challenging.
- For the final bullets, participants may share points similar to the following.
 - The coach may comment on her strength in providing children with opportunities to count and help her build on that by being purposeful about what set sizes to try next.
 - The coach may comment on her strength providing challenge to children and discuss extending that to Isabella or incorporating smaller sets for Malik and Liam.



Scenario 1

—15-Minute—
In-Service Suites

- Based on the reflection discussed on the prior slide, what goal do you think the teacher should focus on next?
- What are the teacher’s strengths and areas for growth related to the goal?
 - What questions could you ask the teacher to gauge this?



THINK → PAIR → SHARE

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OPTIONAL SLIDE 6:


Notes for presenter:

- Have participants think-pair-share their responses to the questions.
- Based on discussion on the previous slide, participants may suggest the teacher’s goal for the next session be related to providing children the opportunity to count sets big enough to accurately determine the set size a child can count and push them to count a slightly larger set.
- For the final bullet, teachers should hit on the following points mentioned in the notes for the previous slide.
 - Strengths: recording notes on the size of sets children counted and how they responded, presenting opportunities for counting and seeing and describing the world mathematically; providing sets large enough to be challenging
 - Area for growth: adjusting the size of the set to match children’s current performance (e.g., larger sets for Isabella and smaller sets for Liam and Malik)
- For the final sub-bullet, participants may suggest asking the teacher questions similar to:
 - How well were you able to determine children’s level on the counting trajectory or in the ELOF?
 - What did you do that was helpful for determining children’s level?
 - What do you wish you had done differently?
 - What do you want to work on next to build on what you accomplished?

Action plan goal:
I will provide small group instruction to children to support their learning of counting, cardinality, and quantity comparison, and I will collect data during these activities.

Steps to achieve this goal:	Resources needed:	By when:	Completed:
			<input type="checkbox"/>
			<input type="checkbox"/>
			<input type="checkbox"/>
			<input type="checkbox"/>
			<input type="checkbox"/>
			<input type="checkbox"/>




OPTIONAL SLIDE 7:

Notes for presenter:


- As a group, complete an Action Plan for this teacher.

REFERENCES


National Center for Quality Teaching and Learning. 2015. *Component 1: Shared Goals and Action Planning*. <https://eclkc.ohs.acf.hhs.gov/sites/default/files/pdf/pbc-brief-sgap.pdf>.



Focused Observation Plan



Action plan goal	Possible observation times and activities	Data collection ideas



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OPTIONAL SLIDE 8:

Notes for presenter:

- As a group, complete a Focused Observation Plan for this teacher's next observation.

REFERENCES

National Center for Quality Teaching and Learning (2015, Summer). *Component 2: Focused Observation*. Retrieved from: <https://eclkc.ohs.acf.hhs.gov/sites/default/files/pdf/pbc-brief-fo.pdf>.

Scenario 2

During snack time at a socialization, the parents work to set the table – giving each child one bowl, one spoon, one cup, and one napkin. Two-and-a-half year old Tyson notices that there aren't enough spoons for every child and says, "more spoons!" The home visitor overhears the mother say, "Yes, we need more spoons." The home visitor whispers to the mother, "Maybe you can tell him we need 2 more spoons. Add in some math language!"

How could you coach this home visitors in terms of supporting the parent's use of mathematics teaching/practices?

OPTIONAL SLIDE 9:

Notes for presenter:

- Read the scenario and ask the question, "How could you coach this home visitor as she supports the parent's use of mathematics teaching/practices?"
 - Give participants a few minutes to discuss the scenario and share their ideas with each other, then have them share out.
 - It may be necessary to re-focus participants so that their coaching suggestions focus on mathematics in particular.
 - For example, child "identifies 'more' or 'less' with a small number of objects without needing to count" and "uses language to refer to quantity." (Goal IT-C 8)
- Summarize what participants say, connecting their ideas back to the coaching cycle and mathematics specific content.



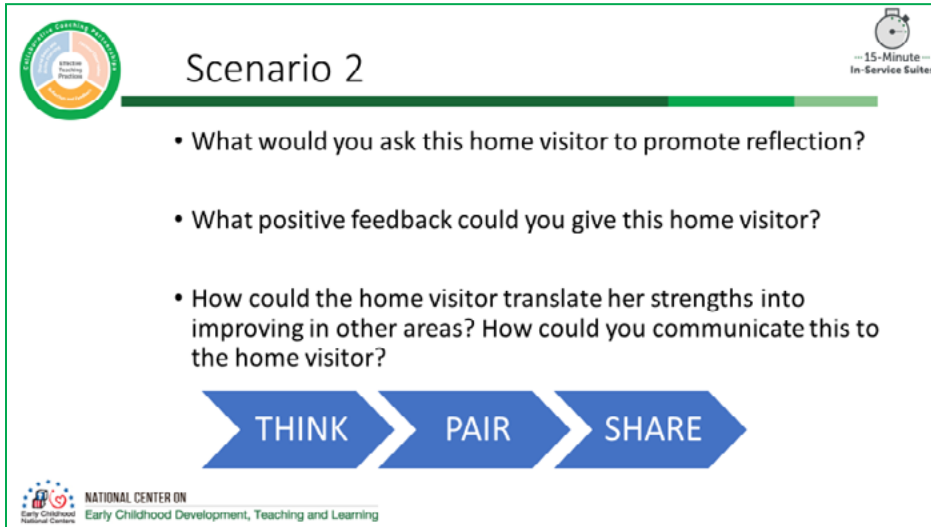
Scenario 2

Parent: Priyanka Agarwal		Coach: Aisha Williams	
Date: 2/23	Time spent in observation: 45 mins	Time spent in meeting: 1 hr	
Observation focus: making the most of math moments outside of 'math time'			
Tally number of children teacher did/did not take notes on:			
✓		n/a	
Tally number of children given/not opportunity to respond individually:			
		missed opportunity	
Children's performance:			
Child	Skill	Interacts with peers	LT-Level
1. TYSON	comparing	✓?	one-to-one responder??
2.			
3.			
4.			
Additional Notes: -you can get a better idea of Tyson's skills & LT level if you let him set the table & practice 1:1 correspondence -you can help Tyson develop his number knowledge by using a number in your response, say something like: Yes, Liam and Emma don't have spoons, we need 1, 2 - 2 more! Follow-up needed:			

OPTIONAL SLIDE 10:

Notes for presenter:

- Have participants discuss how this Focused Observation Form is similar or not to the notes they would take for this teacher.
- Ask participants to react to these notes.
- Ask participants what other information or notes would be helpful.
- What would participants main notes for the teacher look like, based on this Focused Observation Form?



Scenario 2

• What would you ask this home visitor to promote reflection?

• What positive feedback could you give this home visitor?

• How could the home visitor translate her strengths into improving in other areas? How could you communicate this to the home visitor?

THINK PAIR SHARE

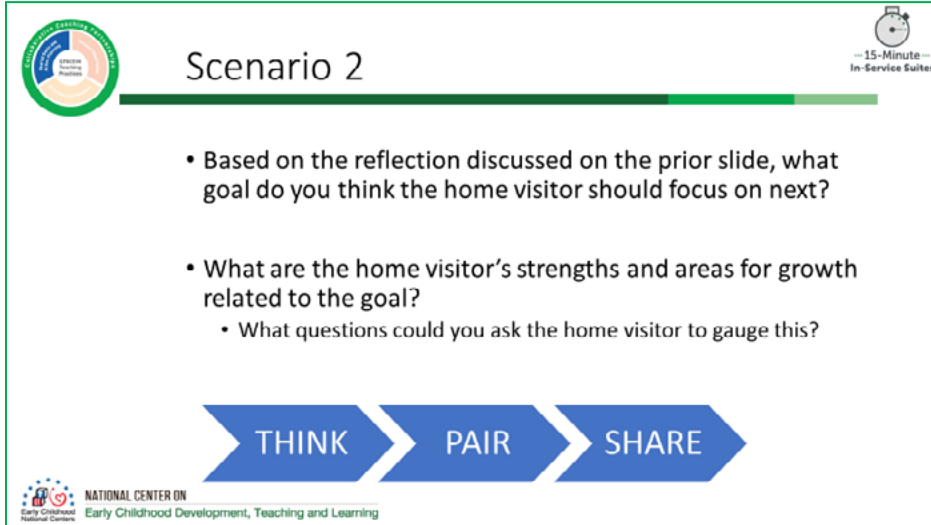
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—15-Minute—
In-Service Suites

OPTIONAL SLIDE 11:

Notes for presenter:

- Have participants think-pair-share their responses to the questions.
- For the first bullet, participants should share questions similar to the following examples, which you presented earlier in the presentation. Remind them of these questions if necessary.
 - What went well? How did the child/ren react or respond?
 - What went well? How did the parent(s)/caregiver(s) react or respond? How did their reaction support their child’s developing sense of number and quantity?
 - What would you do differently next time you use this practice?
 - What do you hope the child/children/parent(s)/caregiver(s) will gain by using this practice? How will you know?
- For the second bullet, participants may share points similar to the following.
 - The home visitor did well helping the parent notice and reinforce Tyson’s understanding and use of the math concepts.
 - The home visitor could have helped the parent to reinforce Tyson as he viewed and described his world mathematically. For the final bullet, participants may comment on how well she helped the parent reinforce “more,” and how she could support the parent in building on that comment by elaborating her response and incorporating number words in her response.
 - Participants may also note how the home visitor could have helped the parent see that Tyson was viewing his world mathematically, and that the parent could take that knowledge and provide him an opportunity to set the table to practice 1-to-1 correspondence.



Scenario 2

—15-Minute—
In-Service Suites

- Based on the reflection discussed on the prior slide, what goal do you think the home visitor should focus on next?
- What are the home visitor’s strengths and areas for growth related to the goal?
 - What questions could you ask the home visitor to gauge this?



THINK → PAIR → SHARE

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OPTIONAL SLIDE 12:


Notes for presenter:

- Have participants think-pair-share their responses to the questions.
- Based on the discussion on the previous slide, participants may suggest goals similar to the following:
 - Providing linguistically-appropriate labels of small quantities to help children build their understanding of number (e.g., I’m getting 1 marker; I have 2 books on the table).
 - Integrate opportunities for children to do math throughout the day (e.g., Let children practice 1-to-1 correspondence by setting the table).
- For the final sub-bullet, participants may suggest asking the home visitor questions similar to:
 - How well do you think you took advantage of this math moment during mealtime?
 - What did you do that helped the parent support Tyson’s early math thinking?
 - What do you wish you had done differently? What could you have added?
 - What do you want to work on next to build on what you accomplished?

Action plan goal:
I will provide small group instruction to children to support their learning of counting, cardinality, and quantity comparison, and I will collect data during these activities.

Steps to achieve this goal:	Resources needed:	By when:	Completed:
			<input type="checkbox"/>
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OPTIONAL SLIDE 13:

Notes for presenter:


- As a group, complete an Action Plan for this teacher.

REFERENCES

National Center for Quality Teaching and Learning. 2015. *Component 1: Shared Goals and Action Planning*. <https://eclkc.ohs.acf.hhs.gov/sites/default/files/pdf/pbc-brief-sgap.pdf>.




Focused Observation Plan



—15-Minute—
In-Service Suites

Action plan goal	Possible observation times and activities	Data collection ideas



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OPTIONAL SLIDE 14:

Notes for presenter:

- As a group, complete a Focused Observation Plan for this teacher's next observation.

REFERENCES

National Center for Quality Teaching and Learning. 2015. *Component 2: Focused Observation*.
<https://eclkc.ohs.acf.hhs.gov/sites/default/files/pdf/pbc-brief-fo.pdf>.