Systems Thinking in Early Childhood: **Shifting Perspectives**

**WHAT’S IN THIS PD2GO PACK?**

To support young children’s learning and development effectively, teachers and providers need to think about situations from multiple perspectives. This pack introduces the ladder of inference, a systems thinking tool that helps us see and understand multiple perspectives and make better decisions in our daily work.

**Your Participants Will...**
increase their capacity to identify their mental models and understand how they shape behavior and influence decisions.

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**SUPPORTING MATERIALS**

**Facilitator’s Guide** Everything you need to facilitate this PD2GO presentation on *Shifting Perspectives*, including an interactive presentation page along with step-by-step presenter’s notes.

**Coaching Corner** One-page resource with self-reflection and practice opportunities that can be explored individually, with peers, and in professional development sessions.

Additional resource materials related to this pack provide opportunities to explore and expand your skills and knowledge through **Digging Deeper**, **Resource Links**, and **Family Connections**.
HOW TO USE THIS FACILITATOR’S GUIDE

This Facilitator’s Guide will provide you with step-by-step information on how to present this session using the interactive presentation page and downloadable materials specific to this PD2GO pack. We recommend opening the pack presentation as you go through this Facilitator’s Guide.

Presentation Information

Text written in italics is meant to be spoken out loud during the course of the presentation.

Other text, marked with this icon (i), offers important information such as instructions or suggested answers to facilitate the presentation of this PD2GO pack.

THE INTERACTIVE PRESENTATION PAGE

The presentation page includes the following elements:

- **Steps**

  Click on each number icon to begin the section of the presentation—use the presenter’s notes in this guide to facilitate each step of the presentation.

DOWNLOADABLE MATERIALS

- **In This Pack**

  Click on the downloadable materials hyperlink to access all materials related to this presentation.

- **In This Bundle**

  Click on the downloadable materials hyperlink to access all additional resources and materials that can be used with this presentation and other related packs.

EXPANDING ON THIS PD2GO PACK

This presentation on *Shifting Perspectives* can be used individually or in conjunction with related packs in the bundle, including *Why Systems Thinking?*, *Thinking Below the Surface*, and *Changing Times*. Additional resources and materials in this bundle (*Digging Deeper*, *Resource Links*, and *Family Connections*) are designed to extend skills and knowledge around these related packs, provide links to resources, and promote partnerships with families.
Examining our mental models is a key factor in reflective practice.

Facilitator: I'd like to tell you a story that illustrates mental models.

Marco invited two of his coworkers, Rochelle and Mai, to his wedding. Although they hadn’t met his fiancée, they were thrilled to be a part of Marco’s special day. Rochelle offered to drive Mai to the ceremony. When they arrived at the church, Mai asked, “Why are we at the church? Why aren’t we going to the bride’s house?” Rochelle was surprised at her question. She responded, “Why would we go to her house? We haven’t even met her yet.” Mai said, “In my country, when a couple gets married, everyone meets at the bride’s house and goes with her to the church or temple.”

What happened here?

Invite participants to respond. If not stated by the group, share the following:

Rochelle and Mai had different ideas about where and when guests gather at weddings.

We all have assumptions or pictures in our mind about how the world works—in systems thinking, we call these pictures “mental models.” Our mental models strongly influence our thoughts and actions. For example, if Mai had been driving the car, she probably would have looked for a house, not a church.
Facilitator: Examining our mental models is a critical part of reflective practice. Because mental models shape our thoughts and behavior, they influence how we make decisions and solve problems.

Facilitator: As teachers and providers, we have mental models about child development, family relationships, colleagues, and supervisors. When we meet a new child or family, our mental models shape what we notice and how we respond.

Facilitator: Consider these children playing. What do you see?

Inviting participants to respond. Possible responses include:

- Three children are in the block area.
- Two children are playing together; one child is watching.

Facilitator: The child standing alone beside the shelves is Tony. What thoughts or feelings come to you about Tony?
**STEP 2: CONNECT**

**PRESENTATION SEQUENCE**

**FACILITATOR’S NOTES**

Invite participants to respond. Possible responses include:

- He seems sad or lonely.
- He is probably shy; maybe he is new to the program.
- Maybe he has a hard time joining children when they’re playing.
- I wonder if he tried to join their play, and they rejected him.

**Facilitator:** *We each came up with some assumptions about why Tony isn’t playing with the others. Our mental models influenced what we noticed and the assumptions we made about him.*

**Facilitator:** *Now, based on those assumptions, what would you do as the adult in this situation? Turn to a partner and share your answer.*

Invite participants to respond. Here are some potential responses:

- I would first ask Tony if he wants to play with the others.
- I would give him some ideas for joining their play.
- I would ask him how he is feeling today.
- I would suggest to the other children that they include Tony.

**Facilitator:** *Let’s say that what you are seeing doesn’t fit your mental model of Tony based on your past experiences with him. Your mental model of Tony leads you to see him as outgoing and playful; his friends like playing with him. How would this change your assumptions about why Tony is standing alone watching his*
### Systems Thinking in Early Childhood: Shifting Perspectives

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#### CONNECT

**PRESENTATION SEQUENCE**

- friends? Or, what if your mental model pictures Tony as shy or uneasy around other children? What might your assumptions be then?

**FACILITATOR'S NOTES**

- The same situation can be interpreted in different ways. Thinking that Tony is usually outgoing and playful, you might assume he is not feeling well. But if you think of Tony as shy and uneasy, you might not assume he’s feeling ill. Either way, the circumstance remains the same, but what you think and might do are different.

- As we see in this example, our mental models directly impact how we interpret different situations. They also influence our actions.

- Systems thinkers recognize that their mental models may not always be accurate or complete, so they intentionally check their theories and assumptions to avoid jumping to quick conclusions. They consider other perspectives about the situation.

- When we pause and reflect on our mental models, we resist the urge to jump to quick conclusions. As a result, we make more thoughtful decisions.
### STEP 3: LEARN

#### PRESENTATION SEQUENCE

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
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<tbody>
<tr>
<td>3</td>
<td>Pausing on the Ladder of Inference</td>
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</tbody>
</table>

#### FACILITATOR’S NOTES

**[5 min]** Step 3 - Learn

**Facilitator:** One systems thinking tool we use to intentionally check our mental models is the ladder of inference. The ladder of inference illustrates how we move from observation to assumptions to action.

We experience many different situations throughout the day. For example, a father dropping off his daughter at family child care, team members participating in a staff meeting, or children painting at easels.

Of course, our brains don’t overload us with ALL the details; to help us process the huge amounts of information that surround us, our brains filter what we experience so we only notice certain aspects of the situation.

We then add meaning to what we see based on our past experiences. Over time, this process leads to assumptions and beliefs that become our mental models about the world.
Finally, we act. As we saw in the example about Tony, we make decisions and take action based on our mental models.

So how do we test our mental models and make more effective decisions? We begin by intentionally paying attention to the observable information around us. We ask ourselves:

- What did I notice or pay attention to?
- Did I miss or ignore anything?
- What other information do I need to understand this situation?

We then begin to identify our mental models:

- What thoughts or feelings came up for me?
- What assumptions do I have about this situation?
- Are there other perspectives I might consider?

We also can invite others to share their perspectives. We might say:

- I wonder what you thought about...
- I’d like to know how you feel about...
- Here’s my perception. Can you help me understand yours?

Let’s see how we can use the ladder of inference in our early childhood work.
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#### FACILITATOR’S GUIDE

**Step 3: Learn**

<table>
<thead>
<tr>
<th>Presentation Sequence</th>
<th>Facilitator’s Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference handout.</td>
<td>□ &quot;Using the Ladder of Inference in Everyday Situations&quot;</td>
</tr>
<tr>
<td>Ask a volunteer to read Vignette #1 with you.</td>
<td></td>
</tr>
<tr>
<td>Mateo and Sonya own a family child care program. At 7:30 a.m., they see Ravi bring his daughter Anna into the room, fill in the sign-in sheet, quickly wave goodbye to Anna, and then leave.</td>
<td></td>
</tr>
<tr>
<td>I will play the role of Mateo, and our colleague (state volunteer’s name) will play the role of Sonya.</td>
<td></td>
</tr>
<tr>
<td>Sonya: I’m sorry Ravi left so quickly; I wanted to ask him what Anna likes to eat at home. She doesn’t seem to be eating much when she’s here.</td>
<td></td>
</tr>
<tr>
<td>Mateo: Oh, he’s always like that. He never talks to me.</td>
<td></td>
</tr>
<tr>
<td>Now let’s apply the ladder of inference to this situation. What information do we have pooling around the bottom of the ladder?</td>
<td></td>
</tr>
<tr>
<td>Invite participants to respond. Possible responses include:</td>
<td></td>
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<tr>
<td>□ Ravi brought his daughter into the room.</td>
<td></td>
</tr>
<tr>
<td>□ Ravi signed the sign-in sheet.</td>
<td></td>
</tr>
<tr>
<td>□ He waved goodbye to Anna and then left.</td>
<td></td>
</tr>
<tr>
<td>Based on this information, what did Mateo and Sonya pay attention to?</td>
<td></td>
</tr>
</tbody>
</table>
### FACILITATOR’S NOTES

#### PRESENTATION SEQUENCE

<table>
<thead>
<tr>
<th>Invite participants to respond. Possible responses include:</th>
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<tbody>
<tr>
<td>- The father’s interactions with his daughter.</td>
</tr>
<tr>
<td>- How quickly he left.</td>
</tr>
<tr>
<td>- He didn’t acknowledge or speak to Mateo and Sonya.</td>
</tr>
</tbody>
</table>

**Facilitator:** What meaning did Mateo and Sonya add to this situation? What assumptions did they make? Although we don’t know for sure what Mateo and Sonya were thinking, we can make some guesses.

Let’s say that Sonya thinks Ravi was in a hurry and couldn’t stop to talk. She assumes the father is late for work. On the other hand, Mateo wonders why Ravi doesn’t take time to talk with the family child care providers. Doesn’t he see the value of family child care in his daughter’s life?

With two very different perspectives about the father’s behavior, Mateo and Sonya might respond in different ways the next time they see Ravi. How might Sonya respond to him?

<table>
<thead>
<tr>
<th>Invite participants to respond. Possible responses include:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- She would approach him as soon as he entered the room and ask to speak to him.</td>
</tr>
<tr>
<td>- She would wave and say hello to him as he came in.</td>
</tr>
</tbody>
</table>

**Facilitator:** How might Mateo respond to Ravi?

<table>
<thead>
<tr>
<th>Invite participants to respond. Possible responses include:</th>
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<td></td>
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#### Presentation Sequence

<table>
<thead>
<tr>
<th>Presentation Sequence</th>
<th>Facilitator’s Notes</th>
</tr>
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<tbody>
<tr>
<td>[5 min]</td>
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</table>

#### Step 4: Practice

**Presentation Sequence**

<table>
<thead>
<tr>
<th>Let’s Practice with the Ladder of Inference</th>
</tr>
</thead>
</table>

**Facilitator’s Notes**

- Let’s apply the ladder of inference to another scenario.

  - Ask a volunteer to read Vignette #2 from the handout:

  - Imagine this scene: A consultant is working with your program to help you implement a math literacy curriculum. Today is his first day,
and he is introduced at your staff meeting. He stands up, smiles at the group, and holds up the teacher’s guide for the new curriculum.

Facilitator: Now let’s climb up the ladder of inference. What you just heard represents the pool of information on the ground; it’s the observable data. As you pictured this scene in your mind, what information did you pay attention to? Write down your answers on the first rung of the ladder.

Invite the group to respond. Some potential responses are:
- He smiled at the staff.
- The consultant was a man.
- The teacher’s guide was a thick book.

Facilitator: Each of us pays attention to different details of the story. Think about the mental models or images that came up for you. For example, if your mental models were about math, what were they? If your mental models were about outside consultants, what were they? Or maybe your mental models were about implementing a new curriculum. Write down the mental models that surfaced for you.

Invite the group to respond. Some potential responses are:
- Consultants can be really helpful.
- I love math!
- Teacher’s guides are always long and boring.
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## PRESENTATION SEQUENCE

<table>
<thead>
<tr>
<th>Facilitator's Notes</th>
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</thead>
<tbody>
<tr>
<td><strong>Identifying mental models allows us to intentionally think about them and make them more complete and accurate.</strong></td>
</tr>
<tr>
<td>On the third rung of the ladder, write down how you might act if you were in this situation.</td>
</tr>
<tr>
<td>When we take time to identify our mental models, we stop scrambling up the ladder of inference and begin to consider other perspectives.</td>
</tr>
<tr>
<td><strong>People have different mental models about math. These mental models are tied to our previous experiences, as well as our beliefs about child development. Surfacing and sharing mental models helps us understand where each person is coming from when changes—like a new math curriculum—are introduced at work.</strong></td>
</tr>
<tr>
<td>With a partner, use these prompts to identify your mental models and make them visible to each other:</td>
</tr>
<tr>
<td>1. What are your mental models about math?</td>
</tr>
<tr>
<td>2. How would you feel about implementing a math curriculum for preschoolers?</td>
</tr>
<tr>
<td>Allow one minute for discussion and then reconvene the group.</td>
</tr>
<tr>
<td><strong>The ladder of inference invites us to intentionally identify and test our assumptions before taking action.</strong></td>
</tr>
</tbody>
</table>
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**STEP 5: EXPAND**

**PRESENTATION SEQUENCE**

<table>
<thead>
<tr>
<th>FACILITATOR’S NOTES</th>
</tr>
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<tbody>
<tr>
<td>[2 min]</td>
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</tbody>
</table>

- Reference handout.
- "My Ladder of Inference"

**Facilitator:** Now that we’ve had a chance to use the ladder of inference to become aware of our mental models and consider how they affect our perceptions, let’s practice using them in a work scenario.

**Facilitator:** Think about a recent interaction at work with a child, family member, or colleague. Using the handout, write a brief description of the situation at the top.

- Allow one minute for individual writing.

**Facilitator:** Now let’s discuss the questions listed below the ladder:

- What were the observable data in this situation? What happened?
- What assumptions did I make at the time? What mental models came to mind for me?
- What other perspectives or mental models might exist?
- Would I respond differently if I had a different mental model? If so, how?

Invite participants to share their experiences, in particular the mental models that came to mind and the alternative actions that could be taken.
**STEP 5: EXPAND  Continued**

<table>
<thead>
<tr>
<th>PRESENTATION SEQUENCE</th>
<th>FACILITATOR’S NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identifying mental models helps us see multiple perspectives and become more effective in our work.</td>
<td>Facilitator: Identifying mental models helps us see multiple perspectives, pay attention to more information, and be more effective in our work with young children.</td>
</tr>
</tbody>
</table>

**THIS PD2GO PACK WAS INFORMED BY THE FOLLOWING RESOURCES**


The Ladder of Inference


https://www.solonline.org/?tool_ladder_of_infer