

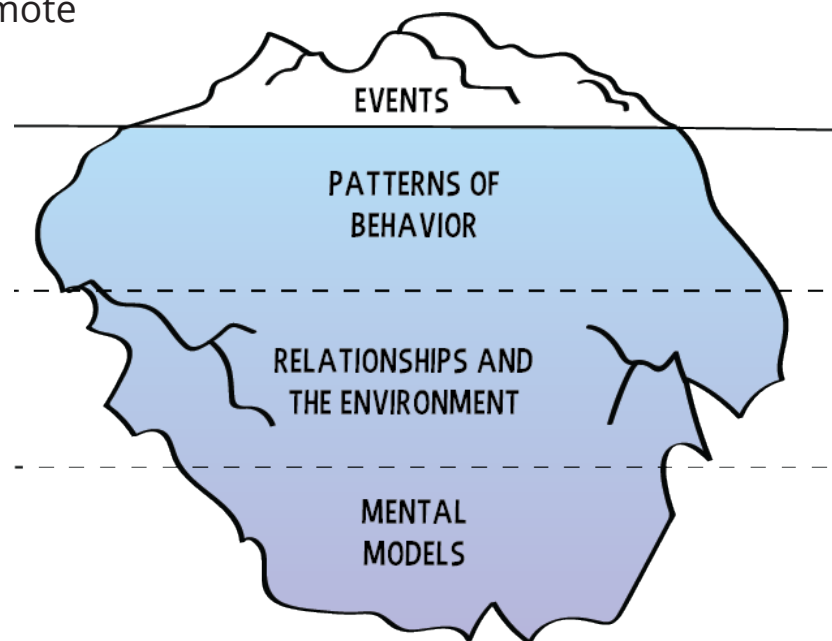
## Systems Thinking in Early Childhood: *Thinking Below the Surface*

### WHAT'S IN THIS PD2GO PACK?

Learn how to use systems thinking tools and habits to reflect on your work with children, families, and colleagues. This pack introduces methods for thinking below the surface of events or situations in order to gather the data needed to make effective decisions and develop strategies that promote quality.

#### Your Participants Will...

increase their capacity to use systems thinking tools to reflect on their daily practice and engage in continuous quality improvement.



### SUPPORTING MATERIALS

**Facilitator's Guide** Everything you need to facilitate this PD2GO presentation on *Thinking Below the Surface* 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.*

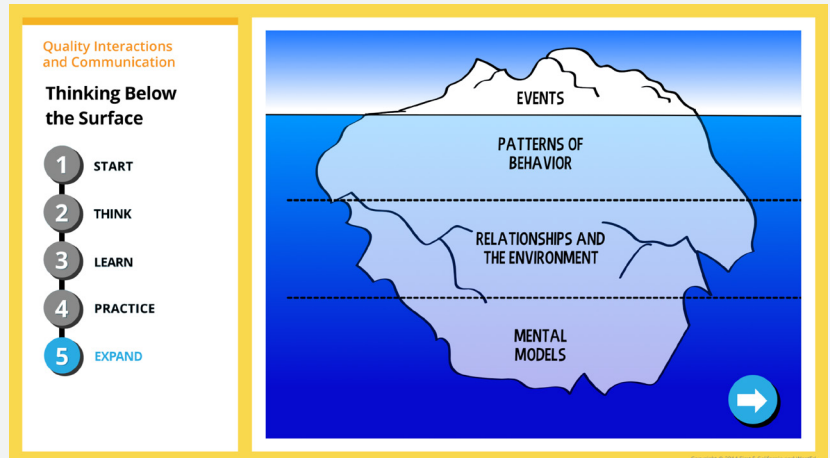
Other text, marked with this icon , offers important information such as instructions or suggested answers to facilitate the presentation of this PD2GO pack.

### 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 *Thinking Below the Surface* can be used individually or in conjunction with related packs in the bundle, including *Why Systems Thinking?* and *Shifting Perspectives*. 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.

### MATERIALS




In this pack, you will find:

[Download all \(82 KB\)](#)

-  [Facilitator's Guide \(100 KB\)](#)  
Everything you need to facilitate this PD2GO presentation on "Thinking Below the Surface," including an interactive presentation page along with step-by-step presenter's notes.
-  [Coaching Corner \(100 KB\)](#)  
One-page resource with self-reflection and practice opportunities that can be explored individually, with peers, and in professional development sessions.
-  [Handout: Using the Iceberg Visual \(100 KB\)](#)

In this bundle, you will find:


[Download all \(160 KB\)](#)

- Additional resource materials related to this pack provide opportunities to explore and expand your skills and knowledge. The resources include:
-  [Digging Deeper \(120 KB\)](#)
  -  [Resource Links \(100 KB\)](#)
  -  [Family Connections \(100 KB\)](#)



**STEP 1:  
START**

**PRESENTATION SEQUENCE**

Step 1



What's in a Name?






Reflecting on the stories behind these events helps us become more effective in our work with children and families.



Go to step 2: THINK

**FACILITATOR'S NOTES**

[2 min]  **Step 1 - Start**

**Facilitator:** *Much of life has a story behind it. Think for a moment about how you got your name—what's the story behind it?*

*Now turn to a partner and briefly share that story.*



Allow one minute for discussion. Then ask a few participants to share their stories with the group.



**Facilitator:** *How we each got our name is one part of our personal story. Yet we know there is so much more to our lives than this one part.*

*In the same way, there is a story behind every child, teacher/provider, and family member we work with and every situation we encounter in our work. We may know the title of the story, but we don't always know what's inside.*



**Facilitator:** *We have to open the book! For example, there is a story behind Gabriel's attempts to fly a kite. There is a story behind Lucy's reluctance to have her diaper changed. And there is a story behind Mr. Carter arriving late each day to pick up his son.*



**Facilitator:** *Reflecting on the stories behind these events helps us become more effective in our work with children and families. It helps us make better decisions.*

## STEP 2: THINK


### PRESENTATION SEQUENCE

Step 2




Let's help Erica reflect on Gabriel's story.



To consider a situation fully, we need to think below the surface.



Go to step 3: LEARN

### FACILITATOR'S NOTES

[2 min]

CLICK  Step 2 - Think

**Facilitator:** Erica was introduced to us in the first pack of this systems thinking bundle. Let's help her reflect on Gabriel's story.

CLICK 

**Facilitator:** Erica is concerned about one of the children in her group, Gabriel. He seems so isolated and alone these days. He doesn't play with his friends like he used to. Now he's begun throwing things at them. She knows Gabriel is a sensitive child who takes many things very personally. She also knows that his parents went through a divorce recently.

Let's think below the surface to help Erica understand the situation more fully. Let's consider one aspect of the story—the recent divorce of Gabriel's parents. If you were in Erica's shoes, what assumptions might you make about divorce? What thoughts come to mind?



Pause and invite participants to share their assumptions and ideas. Acknowledge that there are no right answers, just ideas we have about this situation.

**Facilitator:** We each have our own ideas about what this divorce means in Gabriel's life. When we think about the impact of this event, we are influenced by our own mental models, our pre-existing ideas or assumptions about divorce and how it affects children.

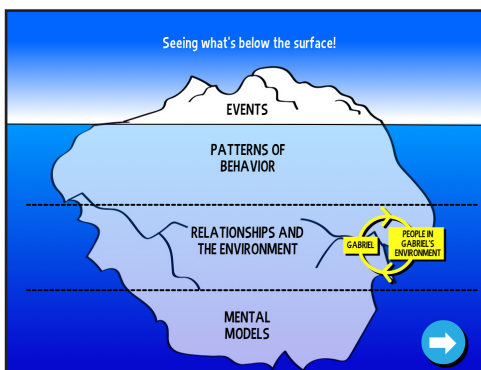
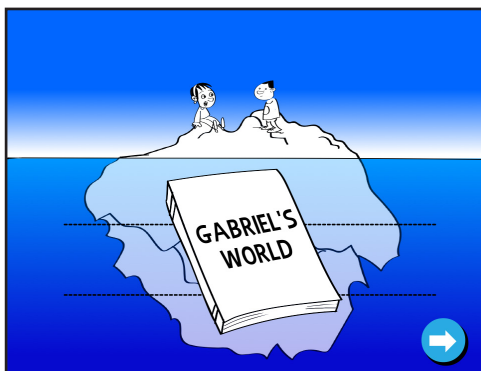
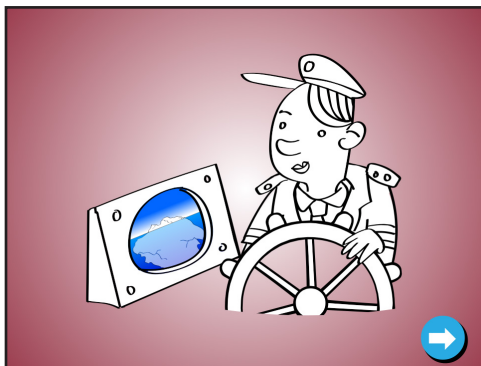
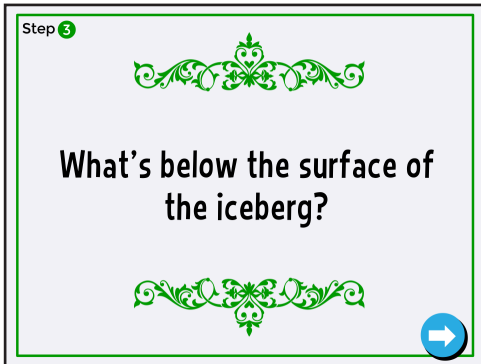
CLICK 

**Facilitator:** To fully consider a situation, we need to think below the surface. For example, when we become aware of our mental models, we are thinking below the surface of the situation, considering parts of the story that are not readily apparent or visible.

CLICK 

**STEP 3:  
LEARN**

**PRESENTATION SEQUENCE**



**FACILITATOR'S NOTES**

[4 min]



**Step 3 - Learn**

**Facilitator:** *Let's use the iceberg visual, adapted from the work of the Waters Foundation (©2014 Systems Thinking in Schools, Waters Foundation, [www.watersfoundation.org](http://www.watersfoundation.org)), to help Erica think about other parts of the story that lie below the surface. What's below the surface of an iceberg?*



**Facilitator:** *Eighty-five percent of an iceberg lies below the water's surface. We only see the tip of it. To really understand the iceberg, we have to consider what's below the surface. Just like the captain of a ship uses navigational tools to identify the size, shape, and depth of the iceberg in order to navigate around it, we can use this systems thinking tool to navigate situations more effectively.*



**Facilitator:** *The tip of the iceberg represents the part of the story that we can observe. Below the surface of the water, there are parts of the story that are not obvious. These elements are unseen. How can we figure out what's down there?*



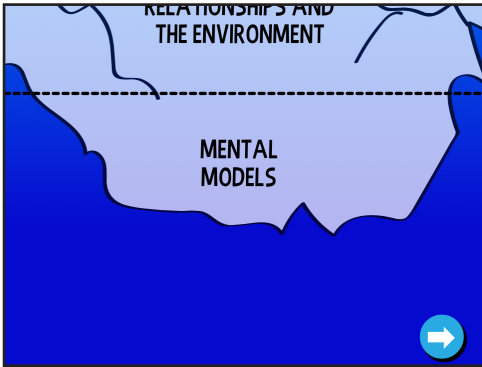
**Facilitator:** *When thinking below the surface of the iceberg, we should consider our mental models, relationships or structures of the system, and patterns of behavior. These questions help us think below the surface:*

- *What mental models do I bring to this situation? What mental models do others bring?*
- *What relationships might be influencing this situation?*
- *What patterns can I identify in this situation?*

**STEP 3:** *Continued*  
**LEARN**

**PRESENTATION SEQUENCE**

**FACILITATOR'S NOTES**



**Facilitator:** *To explore these questions, let's consider Erica as she thinks about Gabriel.*



**Facilitator:** *Mental models are beliefs or assumptions we hold about the world around us. We have mental models about everything: our families, our workplaces, and our communities. For example, we just considered our own mental models about divorce and how it impacts children.*

*Mental models help us understand our world. They are essential to human experience. At the same time, they act as a filter and keep us from seeing all perspectives.*



**Facilitator:** *We all are influenced by the people and environment around us. In turn, we influence others and our environment. Relationship influence flows in a circle. Erica wonders about Gabriel's relationship with his parents since the divorce. What other relationships or environmental factors might be influencing Gabriel's behavior? And how is Gabriel's behavior influencing others?*



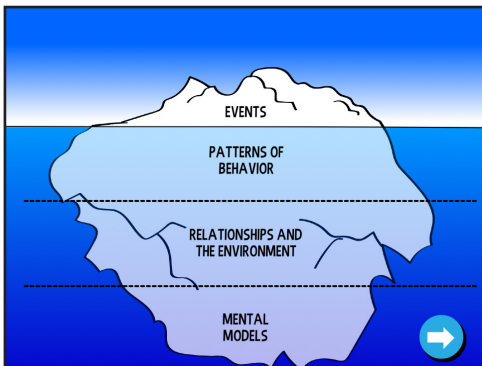
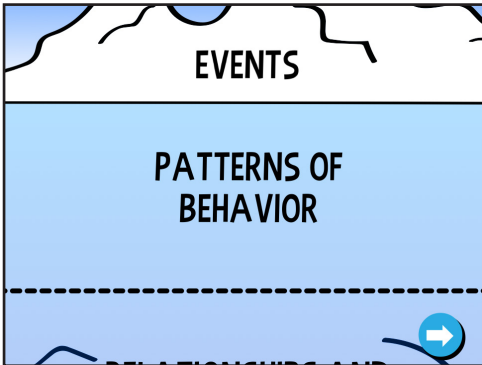
Invite participants to share their ideas. If not stated by the group, here are some possible responses:

- How are his relationships with his classmates, teachers/providers, and caregivers?
- Does he live in two households now instead of one?
- Does he spend time with his extended family?
- What community or cultural groups does he participate in?
- How do his parents relate to each other? To his siblings?



**STEP 3:** *Continued*  
**LEARN**

**PRESENTATION SEQUENCE**




  
**Mental models, relationships, and patterns are important aspects of the big picture.**  


Go to step 4: PRACTICE

**FACILITATOR'S NOTES**

**Facilitator:** *Let's help Erica explore the patterns in Gabriel's behavior. When did Gabriel's challenging behavior begin? When does it tend to occur? Does his challenging behavior increase gradually or accelerate quickly? With your partner, write down one way Erica can learn more about these patterns.*

-  Encourage participants to share their ideas. If not stated by the group, here are some examples of what Erica can do:
  - Keep a Post-It pad in her apron and jot down the times when Gabriel is alone and times when he is playing with his peers.
  - Keep a record of the days that Gabriel has more difficulty following the classroom routines.



**Facilitator:** *As we can see, Erica looked beyond the actual events to gain a deeper understanding of Gabriel's behavior.*

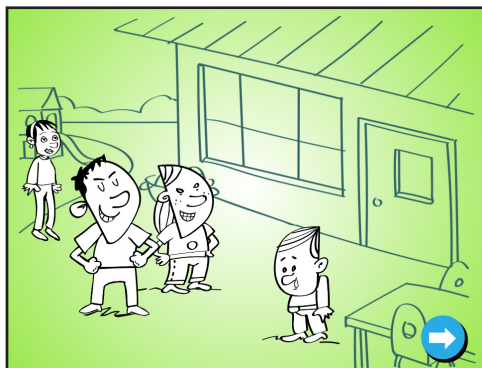
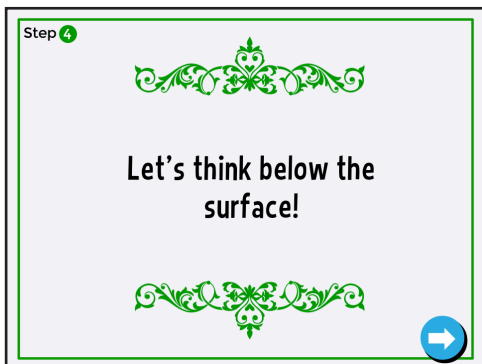


**Facilitator:** *In looking below the surface of the iceberg, we examine our mental models, consider how relationships influence each other, and identify patterns that emerge. These are important aspects of the big picture.*



## STEP 4: PRACTICE

### PRESENTATION SEQUENCE



### FACILITATOR'S NOTES

[6 min]

CLICK Step 4 - Practice



Reference handout.  
**"Using the Iceberg Visual"**

**Facilitator:** *Let's practice using the iceberg visual to reflect on what lies below the surface.*

CLICK

**Facilitator:** *Think about this situation: Several children in your program are getting ready to transition to kindergarten. You've begun to notice a few of them teasing the younger children in the group. You stopped the behavior when you observed it, but you want to have a better understanding about this new behavior.*

CLICK

**Facilitator:** *Remember, mental models refer to our beliefs and assumptions about the world. For example, we may have a mental model that children who are bullied tend to be shy or quiet. With a partner, write down one or two mental models you have about this situation. There isn't a right answer here. We're gathering information and ideas.*



Reconvene the group and ask:

**Facilitator:** *What are your mental models about this story?*



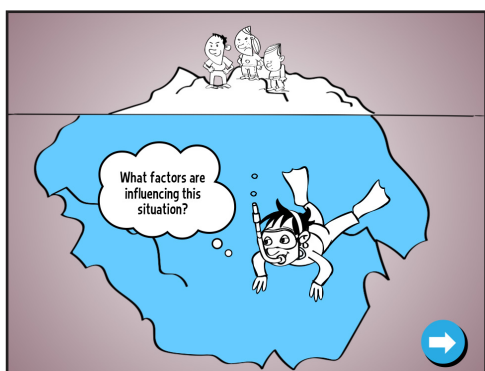
Here are some possible mental models if not stated by the group:

- Children who bully others are mean.
- Children tend to bully children they perceive as weak.
- The older children are now too old for this group; they are at a different developmental level than the other children.



**STEP 4:**  
**PRACTICE** *Continued*

**PRESENTATION SEQUENCE**



**FACILITATOR'S NOTES**

**Facilitator:** *Recognizing our own mental models is a good starting place to understand what is really happening in this situation. If we look further, we may find that our mental models aren't accurate; they may be coloring our perception of the situation. Or, we may see that our mental models do reflect what is happening and can help us consider how to best respond to the situation.*



**Facilitator:** *Now let's think about the personal or environmental relationships in the story. How are relationships and/or the environment influencing this bullying behavior? With your partner, write down one idea.*



Reconvene the group.

**Facilitator:** *What relationship or environmental factors did you think of?*



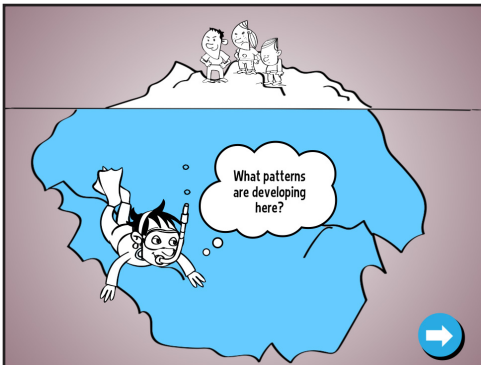
- Here are some possible factors if not stated by the group:
- The size of the playground: is it too small for the types of activities planned?
  - The types of activities available to the children: are they developmentally appropriate for the group?
  - The relationship between the older children, younger children, and adults in the programs: what are they like?
  - In what ways has a caring, safe, and nurturing environment been cultivated for this group of children?

*Like mental models, relationships and the environment can give us clues into the various factors that may be influencing this behavior.*




**STEP 4:**  
**PRACTICE** *Continued*

**PRESENTATION SEQUENCE**







**FACILITATOR'S NOTES**

**Facilitator:** *Lastly, what patterns or trends might be developing here? As a teacher/provider in this situation, what is one possible pattern you'd like to consider further?*

 Reconvene the group and ask.

**Facilitator:** *What patterns did you think of?*


-  Here are some possible patterns to consider if not stated by the group:
-  Does this teasing behavior occur at certain times of the day?
  -  How does the level of teasing change throughout the day? Throughout the week?
  -  Over the course of a week, does this teasing behavior happen every day?

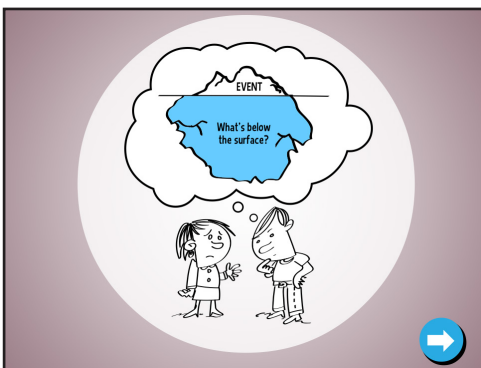
**Facilitator:** *Patterns remind us that behavior and events change over time. When we identify patterns, we can consider ways to prevent challenging situations and strengthen positive outcomes.*





**Facilitator:** *Now let's practice with another example: Margo, a parent in your program, is concerned about her parenting skills. She says she has difficulty setting boundaries with her children. She says they manipulate her to get what they want, and she hasn't been able to figure out what works.*

*With a partner, think of the mental models, relationships, and patterns that may exist below the surface of this situation. Using the handout, write down your questions and thoughts.*

 Allow two minutes for discussion and writing; then bring the group together.



**STEP 4:**  
**PRACTICE** *Continued*

PRESENTATION SEQUENCE	FACILITATOR'S NOTES
	<p><b>Facilitator:</b> <i>Let's do a round robin to share our ideas. Each person can share one question or thought they wrote below the surface of the iceberg.</i></p> <p> Conduct a round robin and acknowledge responses from each participant. Some possible responses may be:</p> <ul style="list-style-type: none"> <li>■ Mental Models                     <ul style="list-style-type: none"> <li>○ This parent is overwhelmed by her parenting responsibilities.</li> <li>○ This parent is too permissive.</li> </ul> </li> <li>■ Relationships                     <ul style="list-style-type: none"> <li>○ How do Margo's work responsibilities affect her home life?</li> <li>○ How do her parenting responsibilities affect her work life?</li> </ul> </li> <li>■ Patterns                     <ul style="list-style-type: none"> <li>○ According to Margo, when does the manipulative behavior occur?</li> <li>○ Are the patterns of behavior different for each child?</li> </ul> </li> </ul> <p><b>Facilitator:</b> <i>From your responses, we see there is a lot of information this teacher/provider needs to gather before offering possible solutions. By involving Margo in this systems thinking process, they can work as partners in addressing her concerns.</i></p> <p></p> <p><b>Facilitator:</b> <i>We've just used the iceberg visual as we practiced systems thinking. When faced with a challenge or concern in our own work, gathering information below the surface can help us consider our next steps. In future systems thinking packs, we'll explore how to use systems tools to identify effective decisions.</i></p>



**Using the iceberg tool can help us consider our next steps.**



Go to step 5: EXPAND

## STEP 5: EXPAND

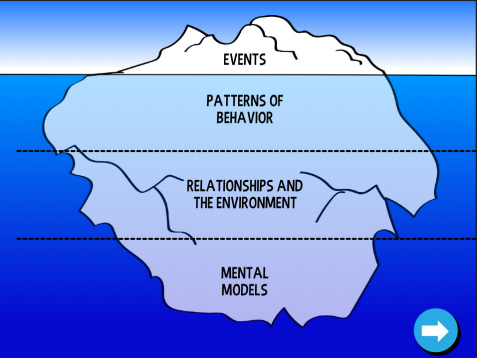

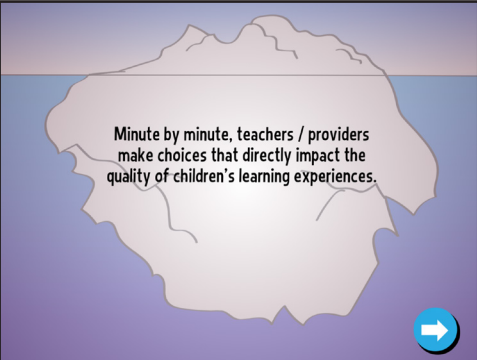


### PRESENTATION SEQUENCE

Step 5





Thinking Below the Surface:  
Putting it into Practice



Systems thinking tools help you see beneath the surface and improve the quality of your interactions with children.

### FACILITATOR'S NOTES

[1 min]



#### Step 5 - Expand

**Facilitator:** *Now you have the opportunity to include systems thinking in your own practice.*



**Facilitator:** *Think for a moment about a situation you've been wondering about in your own work; it can be a situation that went well or something that you want to improve. Use the iceberg visual to think below the surface. What information do you need to consider the situation more fully? For example, what relationships and environmental factors might be influencing the situation? Is there a pattern here?*

*Write down two actions you will take to gather this information.*

*In the next PD2GO packs in this systems thinking bundle, you'll have the opportunity to learn about other tools and habits that help you think "below the surface." In addition to the iceberg visual, you will practice using the ladder of inference and behavior-over-time graphs.*



**Facilitator:** *Minute by minute, teachers/providers make choices that directly impact the quality of children's learning experiences. The capacity to reflect on and critically consider these experiences strengthens your teaching practices.*



**Facilitator:** *Systems thinking tools help you see beneath the surface and improve the quality of your interactions with children.*

## REFERENCES

Kim, Daniel (1996). From event thinking to systems thinking. *The Systems Thinker*, 7 (4), pp. 6-7.

Senge, P., Kleiner, A., Roberts, C. , Ross, R., & Smith, B. (1994). *The fifth discipline fieldbook: Strategies and tools for building a learning organization*. New York: Currency, Doubleday.

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