

Systems Thinking in Early Childhood: *Changing Times*

WHAT'S IN THIS PD2GO PACK?

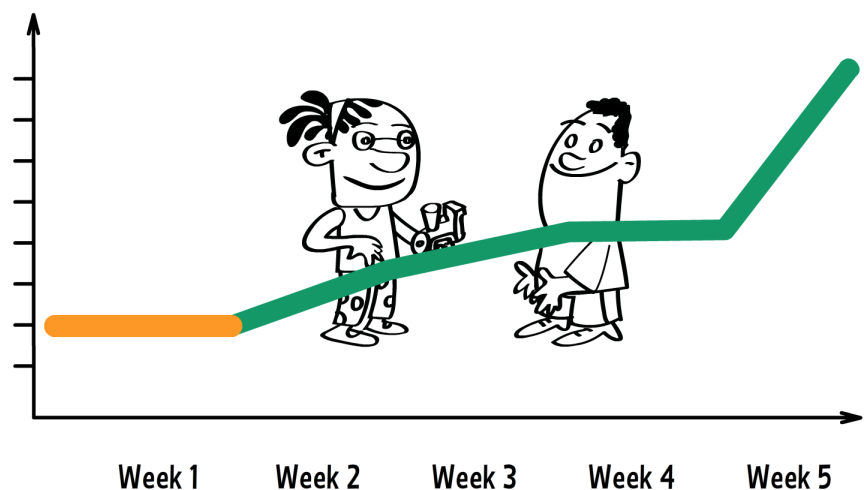
This pack introduces systems thinking tools and habits that help teachers and care providers identify and think about the meaning of trends. Tools such as behavior-over-time graphs (BOTGs) help participants recognize trends and delays as well as use data to make better decisions.

Your Participants Will...

increase their capacity to recognize and use trends to inform decisions.

Behavior-Over-Time Graph: Children's Use of Conflict Resolution Strategies

Children's use
of strategies
per week



SUPPORTING MATERIALS

Facilitator's Guide Everything you need to facilitate this PD2GO presentation on *Changing Times*, 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.

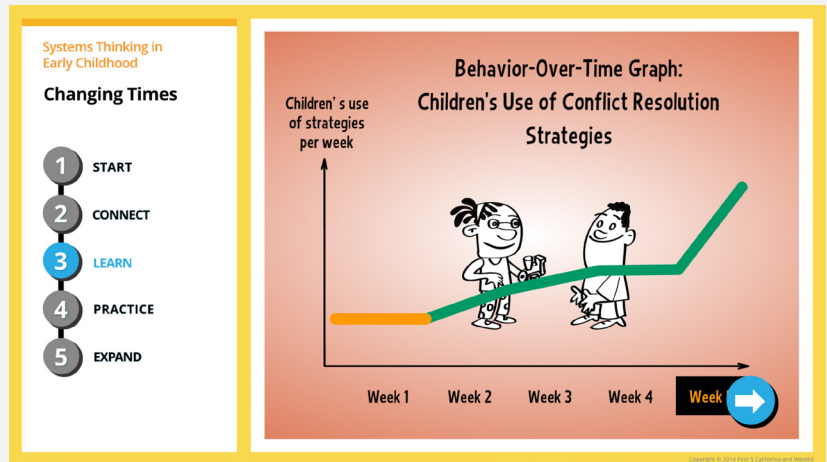
Other text, marked with this icon , offers important information such as instructions or suggested answers to facilitate the presentation of this PD2GO pack.

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 *Changing Times* can be used individually or in conjunction with related packs in the bundle, including *Why Systems Thinking?*, *Thinking Below the Surface*, 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 \(4.5 MB\)](#)

-  [Facilitator's Guide \(4.4 MB\)](#)
Everything you need to facilitate this PD2GO presentation on Changing Times, including an interactive presentation page along with step-by-step presenter's notes.
-  [Coaching Corner \(160 KB\)](#)
One-page resource with self-reflection and practice opportunities that can be explored individually, with peers, and in professional development sessions.
-  [Handout: Changing Times Vignettes \(420 KB\)](#)
-  [Handout: Identifying Trends \(110 KB\)](#)

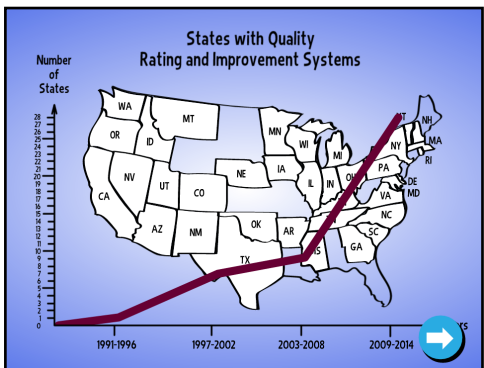
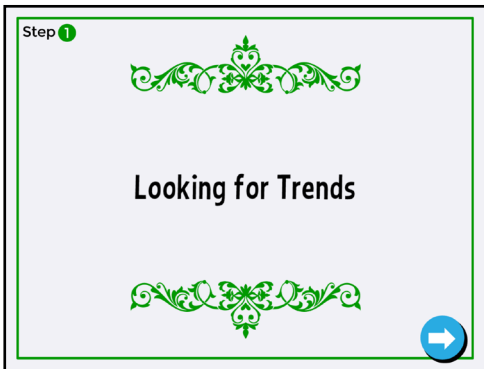
In this bundle, you will find:

[Download all \(280 KB\)](#)

- Additional resource materials related to this pack provide opportunities to explore and expand your skills and knowledge. The resources include:
-  [Digging Deeper \(150 KB\)](#)
 -  [Family Connections \(180 KB\)](#)
 -  [Resource Links \(180 KB\)](#)

STEP 1: START

PRESENTATION SEQUENCE



FACILITATOR'S NOTES

[1 min]



Step 1 - Start

Facilitator: Trends tell us a lot about changes in the world around us. In your own life, you've probably noticed different trends. For example, you might see trends that define changes in:

- ▣ Your savings account
- ▣ Your exercise habits
- ▣ Your tendency to dine out versus cooking at home

What other trends do you notice in your life?



Invite participants to respond.



Facilitator: We also see trends leading to changes in the world of early childhood education. For example, what trends do you see in this map about states with quality rating and improvement systems, or QRIS as they are usually called?



Invite participants to respond. If not stated, note the increasing trend of QRIS from 1991–2014.

Facilitator: In 1991, Texas piloted the first statewide early childhood QRIS. By 2014, 36 states had implemented their own QRIS. What are some implications of this trend?



Invite participants to respond. Possible responses include:

- ▣ QRIS is here to stay; it's now the norm, not the exception.
- ▣ The process started slowly, but

STEP 1: *Continued*
START

PRESENTATION SEQUENCE

FACILITATOR'S NOTES



Trends help us understand the direction and rate of changes in the world around us.



Go to step 2: **CONNECT**



in recent years, more states have adopted a QRIS.

- If our state or county doesn't have a QRIS now, it may have one soon.
- It would probably be helpful for me to learn about our state's QRIS or, if it doesn't have one, learn what a QRIS is all about.



Facilitator:

So why do we look for patterns and trends? They help us understand the direction and rate of changes, and how different factors or circumstances change together. This information can help us improve our service to children and families.

STEP 2:
CONNECT

PRESENTATION SEQUENCE

FACILITATOR'S NOTES

Step 2



What is Changing Over Time?




[2 min]



Step 2 - Connect

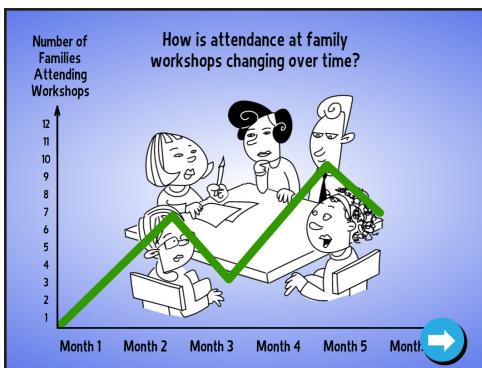
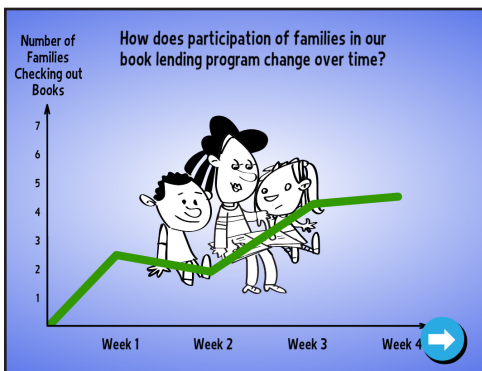
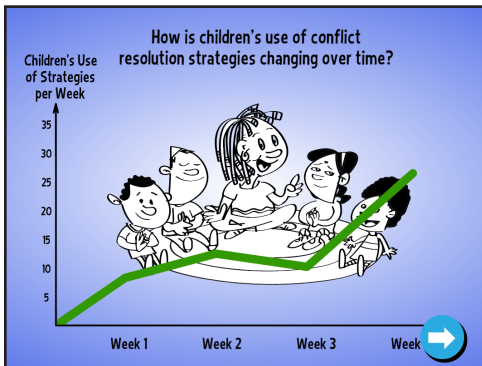
Facilitator:

In your work with children and families, you can determine if something is changing over time—if the trend is increasing, decreasing, or remaining steady. Systems thinkers use a tool called BOTG to understand the story of that change. For example:



STEP 2: Continued CONNECT

PRESENTATION SEQUENCE



FACILITATOR'S NOTES

Facilitator: *How is children's use of conflict resolution strategies changing over time?*



Facilitator: *How has participation of families in our book lending program changed over time?*



Facilitator: *How has attendance at family workshops changed over time?*

Tracking patterns is useful when gathering information about children's behavior, our teaching practices, or program activities. We track behavior when we want to find out whether it is changing over time and, if it is, how. BOTGs help us see beneath the surface to determine if a trend is growing, declining, leveling off, or flat.







Reference handout.








"Identifying Trends"

Facilitator: *Think about your own work. What is a behavior or activity you would like to track over time? For example, you may be interested in tracking the number of children using the science area or the change in children's level of anxiety when dealing with separation in the morning.*

STEP 2: *Continued*
CONNECT

PRESENTATION SEQUENCE	FACILITATOR'S NOTES
<div style="border: 2px solid red; padding: 10px; text-align: center;">  <p>Graphing behavior or activities helps us tell the story of trends.</p>  <div style="background-color: #4a7ebb; color: white; padding: 2px 5px; display: inline-block; margin-top: 5px;">Go to step 3: LEARN</div> </div>	<p><i>In part one of the handout, write down the behavior or activity you want to track and what information you will gather to track changes in this behavior or activity. Then turn to a partner and share your response.</i></p> <p> Allow one minute for writing and discussion, and then bring the group together. Ask participants to share their ideas.</p> <p> Facilitator: <i>Graphing the occurrences of a behavior or activity helps us view changes over time and tell the story of trends.</i></p>

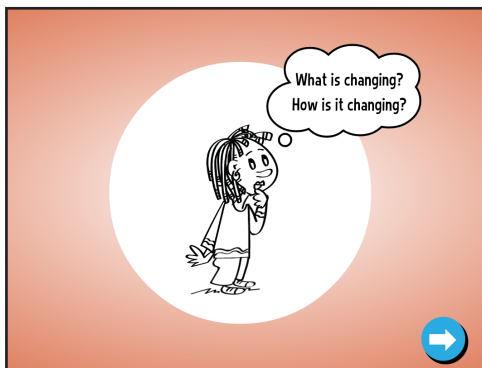
STEP 3:
LEARN

PRESENTATION SEQUENCE	FACILITATOR'S NOTES
<div style="border: 2px solid green; padding: 10px; text-align: center;"> <p>Step 3</p>  <p>Identifying trends helps us reflect on and improve our practice.</p>   </div>	<p>[5 min]  Step 3 - Learn</p> <p>Facilitator: <i>As early childhood educators, we have an opportunity to continually improve our practices. One way to do that is through reflective practice. Reflective practitioners think about the meaning of activities and events, using their knowledge of children and families to improve their work.</i></p> <p> Reference handout.  "Changing Times Vignettes"</p> <p>Facilitator: <i>Identifying trends is a strategy we can use as reflective practitioners. Let's read Vignette #1 to see how tracking trends in behavior can help us. Can someone read it aloud for us?</i></p> <p></p>

STEP 3: Continued
LEARN

PRESENTATION SEQUENCE

FACILITATOR'S NOTES



Vignette #1: Using Conflict Resolution Strategies

Denise teaches a class of four-year-olds; she is committed to improving her teaching practices. Lately, Denise feels she spends too much time managing children's conflicts. She consults with her site supervisor, and together they agree that Denise will implement three specific strategies to build children's skills in resolving conflicts: 1) reading scripted stories about conflict resolution with the children, 2) teaching the children a series of problem-solving steps, and 3) increasing her own use of positive, descriptive feedback. After implementing these strategies, Denise now wants to track the children's behavior to see if they are taking an active role in addressing conflicts.



Facilitator:

We consider two important questions when we track change over time:

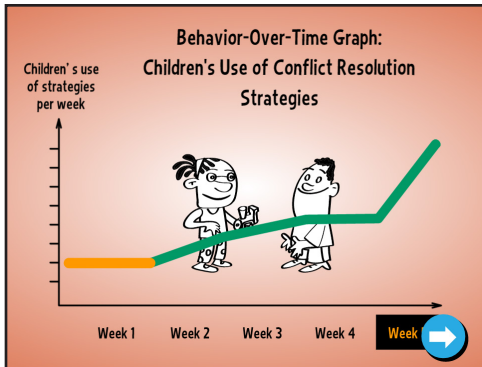
- 1) What is changing? and*
- 2) How is it changing?*

In this vignette, the behavior that is changing is the children's use of conflict resolution strategies. Denise knows children need time to learn new behaviors, so she and the assistant teacher track this behavior over several weeks. They jot down the number of times they see children using the strategies each day.



STEP 3: *Continued* LEARN

PRESENTATION SEQUENCE



FACILITATOR'S NOTES

Facilitator: *In Denise's graph, shown here, how did the children's behavior change over time?*



Invite participants to respond. Possible responses include:

- At first, there wasn't any change. Then, after the first week, the desired behavior began to increase.
- The positive behavior slowly increased over five weeks, but it leveled off at one point in the fourth week.

Facilitator: *How did making a BOTG help Denise?*



Invite participants to respond. Possible responses include:

- It helped her find out if the new strategies had an effect on the children's behavior.
- She could see if the children were actually using the new strategies, rather than just guessing.
- She has a concrete way to help the children reflect on their behavior and see their own progress in using the strategies.

Facilitator: *We may find time delays when we try to change patterns or trends. Notice that the children's use of conflict resolution strategies didn't improve at first. It took time for the children to learn the strategies and start using them on a regular basis. Seeing an increase in only one week would be wonderful, but many attempts to increase a desired behavior take longer.*

STEP 3: *Continued*
LEARN

PRESENTATION SEQUENCE

FACILITATOR'S NOTES



Identifying trends helps you see beneath the surface. You use this information to:

- Figure out what's working.
- Make effective short- and long-term plans.
- Find solutions to persistent problems.



Go to step 4: PRACTICE



Facilitator:

Also, we can see the behavior “flat-lined” in week four. We can’t always expect to see steady increases in a behavior.

That’s why it’s important to track behavior over a period of time. It allows us to see what’s actually happening over a longer period and help us identify our next step.

Identifying trends helps you see beneath the surface. You use this information to:

- *Figure out what’s working.*
- *Make effective short- and long-term plans.*
- *Find solutions to persistent problems.*

STEP 4:
PRACTICE

PRESENTATION SEQUENCE

FACILITATOR'S NOTES


Step 4



Let’s Practice Finding Trends




Book Lending Program




[5 min]



Step 4 - Practice



Reference handout.

📄 **“Changing Times Vignettes”**

Facilitator:

Let’s practice finding trends. We’ll use Vignette #2 from the handout.



Read the vignette aloud.

Facilitator:

Vignette #2: Book Lending Program

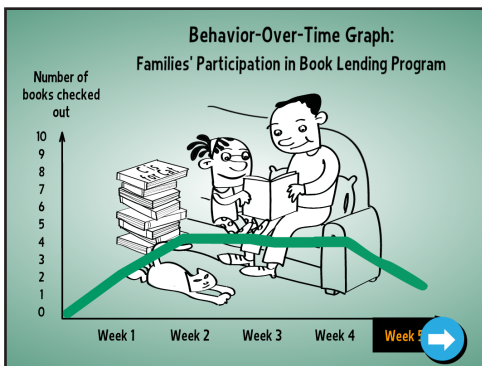
Lisette, a site supervisor, began a book lending program for families. She wants to know how the program is working. She considers three questions:

STEP 4: *Continued*
PRACTICE

PRESENTATION SEQUENCE

FACILITATOR'S NOTES

- What information do I collect?
- What trend do I see in that information?
- What does the trend mean?



Using the BOTG to Tell the Story

- What information do I collect?
- What trend do I see in that information?
- What does the trend mean?



Facilitator: *Can someone read Question #1 for us?*



- 1. What information do I collect?**
Lisette asks teachers in the Blue Room to track the number of books checked out over the next month.

Facilitator: *Can someone read Question #2 for us?*



- 2. What trend do I see in this information?**
Lisette creates a BOTG using the information the teachers collected.



Facilitator: *What trends do you see?*



Invite participants to respond. If not stated, note that there was an increase in book lending through Week 2, then a leveling off, and then a decrease from Week 4 to Week 5.

Facilitator: *Can someone read Question #3 for us?*



- 3. What does the trend suggest?**
Lisette and Donita, the lead teacher in the Blue Room, review the graph together.



Facilitator: *Let's read their conversation aloud. I'll play the part of Lisette. Can someone take the part of Donita?*





Identify the volunteer reader, then read the role play from the handout:

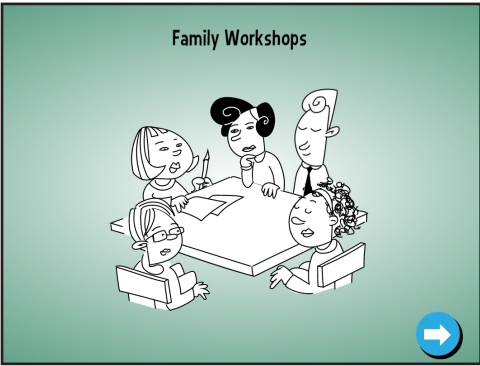
STEP 4: *Continued*

PRACTICE

PRESENTATION SEQUENCE	FACILITATOR'S NOTES
	<p>Facilitator and Volunteer: Vignette #2: Role Play</p> <p>Lisette: <i>I appreciate you and the Blue Room teachers tracking the use of the book lending program. I made a BOTG based on that information, so let's see what story it tells.</i></p> <p>Donita: <i>I see that book lending first increased, then leveled off, and then decreased. But I'm not sure why.</i></p> <p>Lisette: <i>Well, let's think about it. Why might book lending increase at first?</i></p> <p>Donita: <i>I think families were interested in this new project and wanted to try it out.</i></p> <p>Lisette: <i>That makes sense to me, too. What would lead to a decline in book lending later?</i></p> <p>Donita: <i>I think people lost interest and became busy with other things.</i></p> <p>Lisette: <i>Are there any small changes you can make to encourage families to borrow books on a regular basis?</i></p> <p>Donita: <i>Well, I can find different ways to remind them about the program. I can make a poster about the book lending program and hang it up on the classroom door. I can also make sure we talk to families about the books when they pick up their children and ask what they would like in a book lending program.</i></p> <p>Lisette: <i>One of the Red Room teachers mentioned that they change out books every two weeks. Have you introduced new books over the last month?</i></p>

STEP 4: *Continued*
PRACTICE

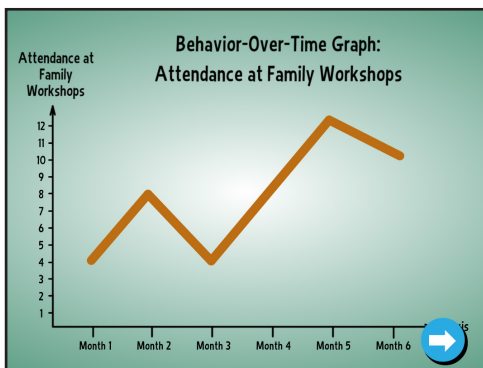
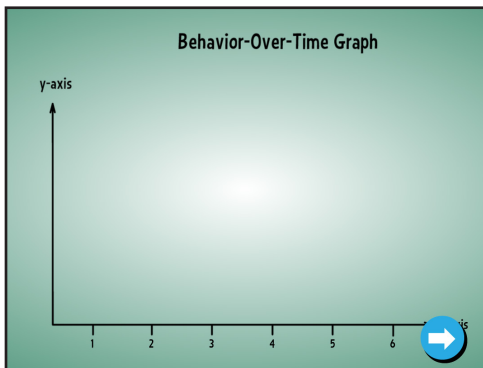
PRESENTATION SEQUENCE	FACILITATOR'S NOTES
	<p>Facilitator and Volunteer: <i>Donita: No, I thought the children would enjoy reading the same books several times. But maybe I need to introduce some new ones, too.</i></p> <p><i>Lisette: Why don't you change out half of the books each week? That way, children will have a choice between old favorites and new books.</i></p> <p><i>Donita: I like that idea. I'll track book use for another month and see what happens. The families mark the books they borrow on a wall chart, so it's easy to collect the information.</i></p> <p>Facilitator: <i>How did tracking information over time help the teachers reflect on this issue and find possible solutions?</i></p> <p> Invite participants to respond. Possible responses include:</p> <ul style="list-style-type: none"> ■ They used real data to find out what was happening. ■ They didn't jump to conclusions—they took the time to see how the book lending program was working. <p>Facilitator: <i>Lisette and Donita used the behavior-over-time graph to consider how to improve the book lending project. By doing so, they identified small ways to make it work better.</i></p> <p></p> <p>Facilitator: <i>Now let's create another BOTG. Can someone read aloud Vignette #3 for us?</i></p>



STEP 4: *Continued*
PRACTICE

PRESENTATION SEQUENCE

FACILITATOR'S NOTES



Vignette #3: Attendance at Family Workshops

The staff of the Sunshine Children's Center has decided to work on increasing family engagement. They planned a series of workshops based on topics that families requested and decided to track the number of participants at each event. Based on their attendance records, let's create a BOTG.



Facilitator:

First, label the behavior they will track on the y-axis (vertical axis): attendance at family workshops. When developing a BOTG, it's important to think about what period of time you will use to track the behavior. Since these workshops will be offered monthly, let's track attendance over 6 months. Label the x-axis Month 1, Month 2, Month 3, etc., up to six months. Now I'll give you the information that they collected. Mark this information on your graph:

- Month 1: 4*
- Month 2: 8*
- Month 3: 4*
- Month 4: 8*
- Month 5: 12*
- Month 6: 10*

Connect the dots on the graph.



Facilitator:

This is what your graph should look like. Now discuss the trend over time you see with a partner.

- Is the trend increasing, decreasing, or remaining the same?*
- How does the trend change over time?*

STEP 4: *Continued*
PRACTICE

PRESENTATION SEQUENCE	FACILITATOR'S NOTES
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Allow one minute for discussion, and then reconvene the group.

Facilitator: *What did you notice about the trend of attendance at family workshops?*



- Possible responses include:
- ▣ Attendance fluctuated between 4 and 12 people at each workshop.
 - ▣ Month 5 had the highest attendance.
 - ▣ The last two months had the highest attendance.

Facilitator: *How might staff of the Sunshine Center use this information to promote family engagement?*



- Possible responses include:
- ▣ They can determine which topics had better attendance and then offer more resources on those topics.
 - ▣ They can look at the dates with low attendance and consider why few people showed up.

Facilitator: *We know there could be many possible answers to this question; the staff of the Sunshine Center may need to try different approaches to increase family engagement and gather other information in order to make effective plans. However, they've made a good start by looking at the data they have and reflecting on their next steps.*



Facilitator: *Systems thinkers identify and track the results of their actions; they identify and reflect on trends in order to improve their practices.*



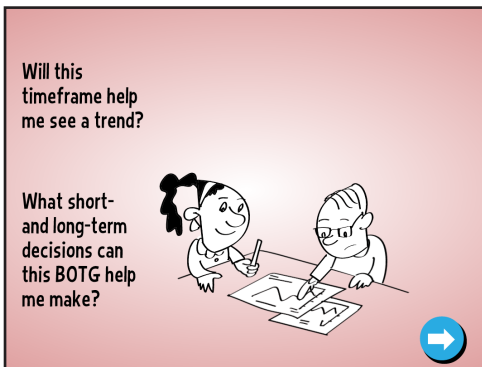
Systems thinkers identify trends in order to improve their practices.



Go to step 5: EXPAND

STEP 5: EXPAND

PRESENTATION SEQUENCE



FACILITATOR'S NOTES

[3 min]

CLICK

Step 5 - Expand



Reference handout.

📄 **"Identifying Trends"**

Facilitator:

Earlier, in part one of the handout Identifying Trends, you identified a behavior or activity in your work that you would like to track over time.

In part two of this handout, label the behavior you want to track on the y-axis (vertical axis) of the graph. Then consider the period of time you'll need to track and identify a trend. Label that period of time on the x-axis (horizontal axis).



Allow one minute for writing.

CLICK

Facilitator:

Share your graph with a partner, explaining what you will track. Then discuss these two questions:

- ❑ *Will this timeframe help me see a trend?*
- ❑ *What is the benefit of tracking this trend? What short- and long-term decisions can this BOTG help me make?*

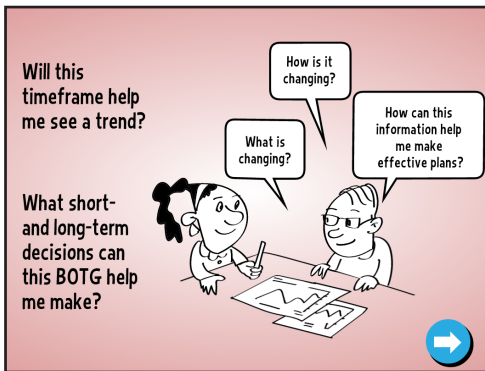


Allow one minute for sharing. If there is time, invite a few participants to share their graphs with the large group.

CLICK

STEP 5: *Continued* EXPAND

PRESENTATION SEQUENCE



FACILITATOR'S NOTES

Facilitator: *As you consider trends in your work, remember to ask yourself the following questions:*

- *What is changing?*
- *How is it changing?*
- *How can this information help me make effective plans?*



Facilitator: *Identifying trends deepens reflective practice and actively promotes quality improvement in your work.*

THIS PD2GO PACK WAS INFORMED BY THE FOLLOWING RESOURCES

Meadows, Donella (2008). *Thinking in Systems: A Primer*. Chelsea Green Publishing, VT.

QRIS National Learning Network, www.qrisnetwork.org

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