

Introduction to Systems Thinking for Early Childhood Leaders

CEELO Leadership Academy Washington DC

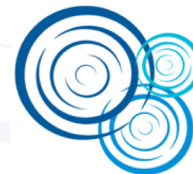
May 2-3, 2018

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**Waters
Foundation**
Systems Thinking in Education



Human Continuum

Check-in

What is a System?

System Simulation*

Discovering characteristics of a system

*Adapted from *The Systems Thinking Playbook*, by
Linda Booth Sweeney and Dennis Meadows



DEBRIEF

Observers

What did you observe during the simulation?

What rules or policies were in place to generate the dynamics you observed?

How challenging was it to understand the system just by observing it?

Participants

What did you notice during the simulation?

What was your experience like as a participant in this activity?

How was this activity like a system?

Who in the simulation had the most influence? Why?

Use these characteristics to help describe our system simulation.

Characteristics of Systems

Elements or Parts: What are the parts of your system?

Interconnections or Relationships among the Parts: Describe the relationships between the parts.

Dynamics: Systems change over time. The relationship between parts influences the behavior of the system.

Goal or Purpose: What was the goal of this system?

A system is a collection of elements that
interact with each other over time to
function as a whole.

The Five Systems

Your understanding of the systems in your life and work will affect your decisions, your actions and the way you choose to live. We have identified five basic life systems that involve people. In this guidebook, each system is represented by a circular icon. These sample systems are included throughout the guidebook and are used in practice exercises and anecdotal examples. To get started, reflect on each of the five system types.

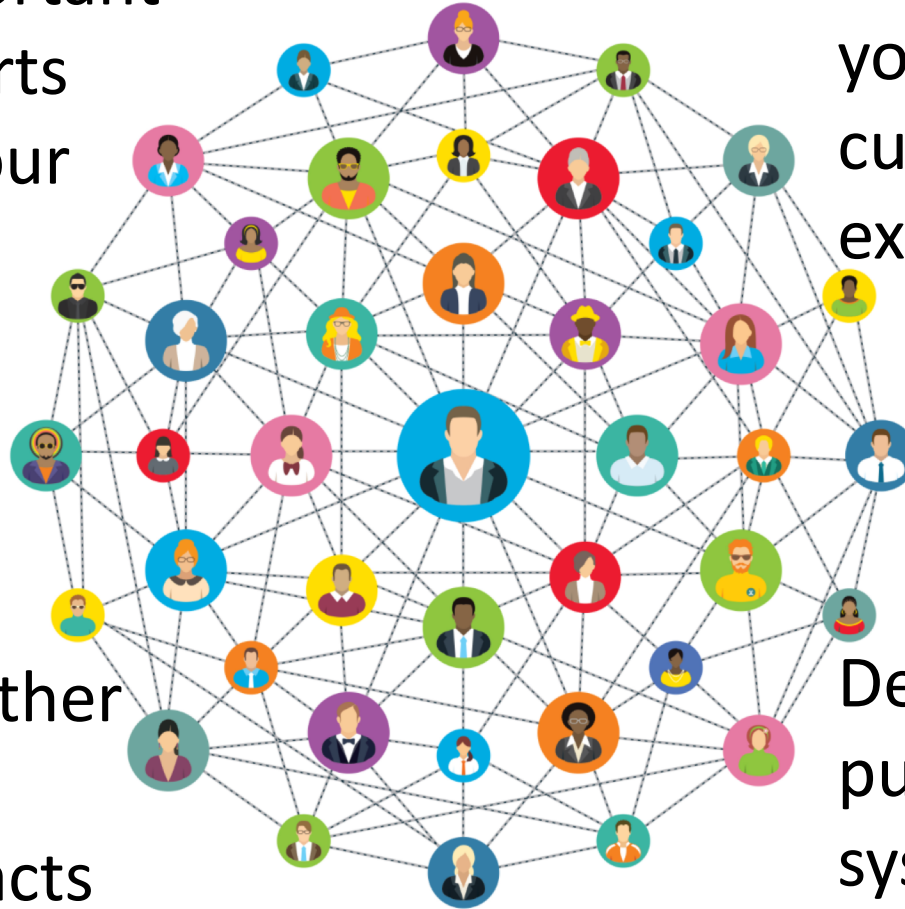
Icons	Sample Systems	Describe how each of these five systems relate to your life. How and why are they applicable and important to you?
	Well-being Personal well-being as a system involves your physical, emotional and social health. It also considers your state of being happy and prosperous.	<hr/> <hr/> <hr/> <hr/>
	Family This system considers all of the people you choose to identify as your family, both immediate and extended, and may include people of all ages.	<hr/> <hr/> <hr/> <hr/>
	Workplace Your workplace considers systems that could include paid employment, a volunteer position, your life's calling, or any role you play where you make a contribution to others.	<hr/> <hr/> <hr/> <hr/>
	School As a place for learning and preparation, school is a system that is common to all of us. Your school could be a public, private, charter or home setting and could be a system that you attended or any other place of learning.	<hr/> <hr/> <hr/> <hr/>
	Community Your community could be a place where you reside or a place where you belong. It could be a town, city, an affiliation or network. Your community involves relationships that are formed around a common purpose.	<hr/> <hr/> <hr/> <hr/>

And now it's time to look at your system

Consider the 4 system elements below:

Name 4 important elements/parts that are in your system

What are 2 changes your system is currently experiencing

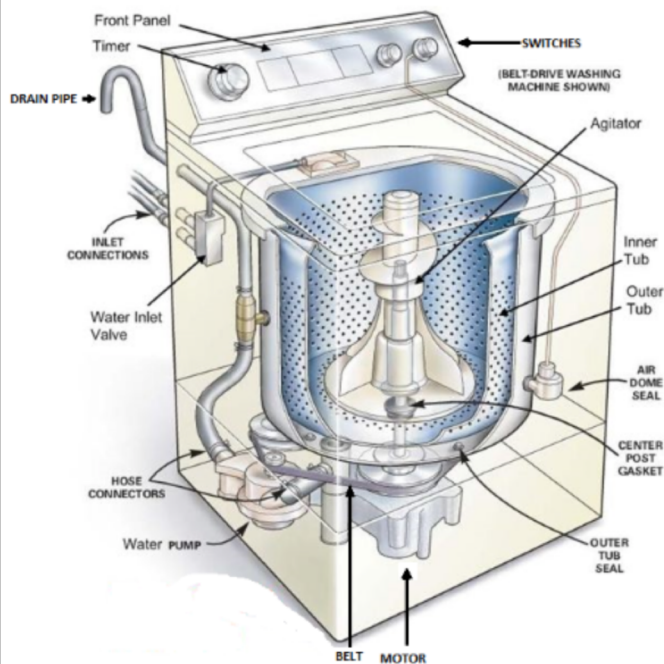


What are 3 other systems your system interacts with?

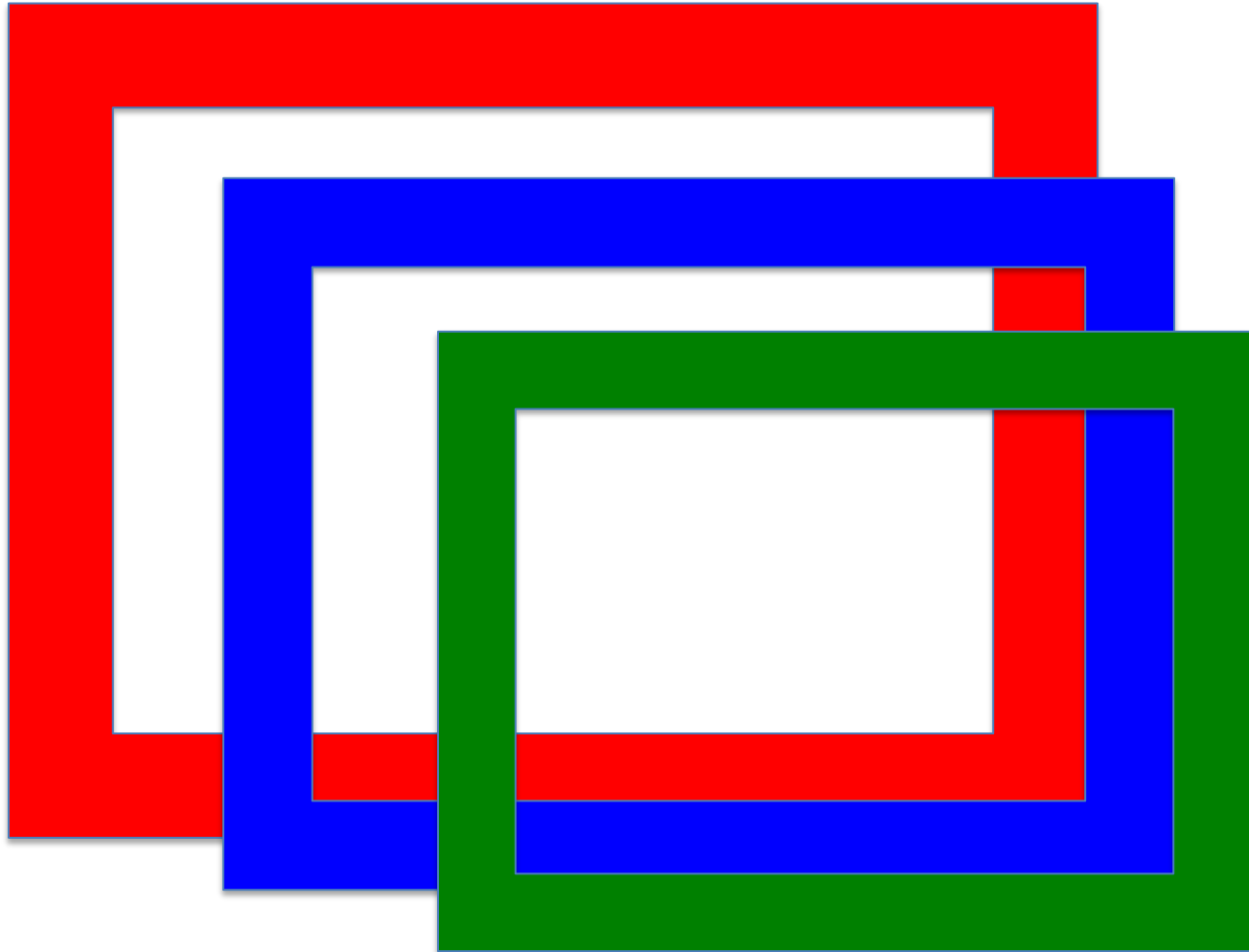
Describe 1 goal or purpose of your system

What is systems thinking?

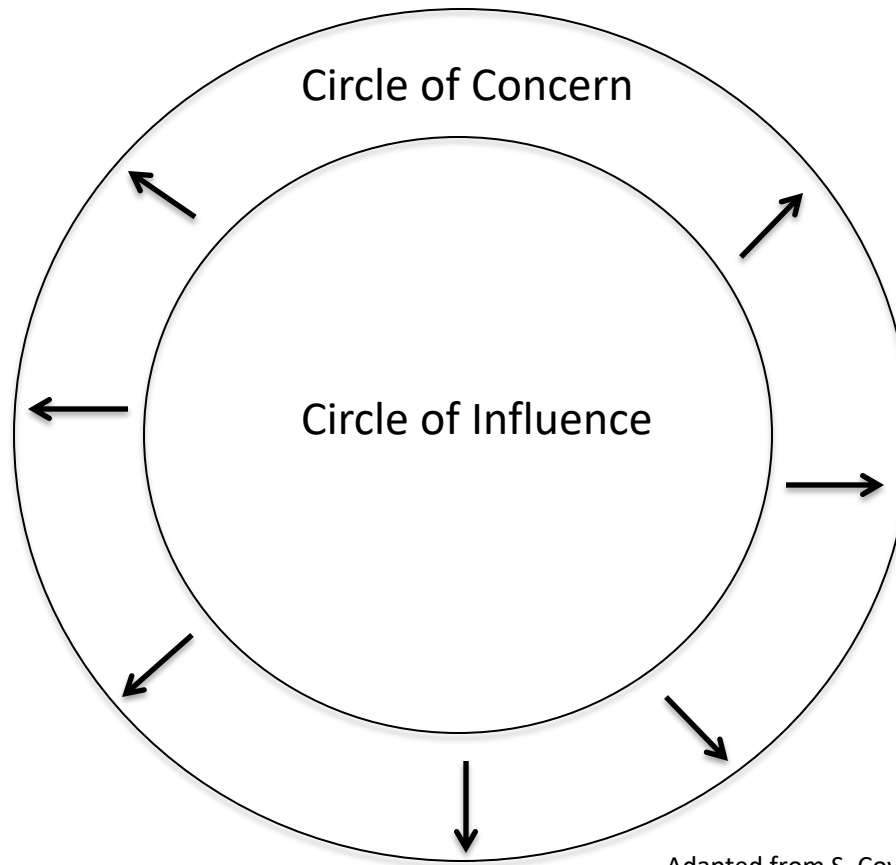
Systems Thinking can be used in your everyday life and work. Systems thinking is a way of understanding that emphasizes the relationships among a system's parts, rather than the parts themselves.



System Boundaries



A Leader is one who influences.

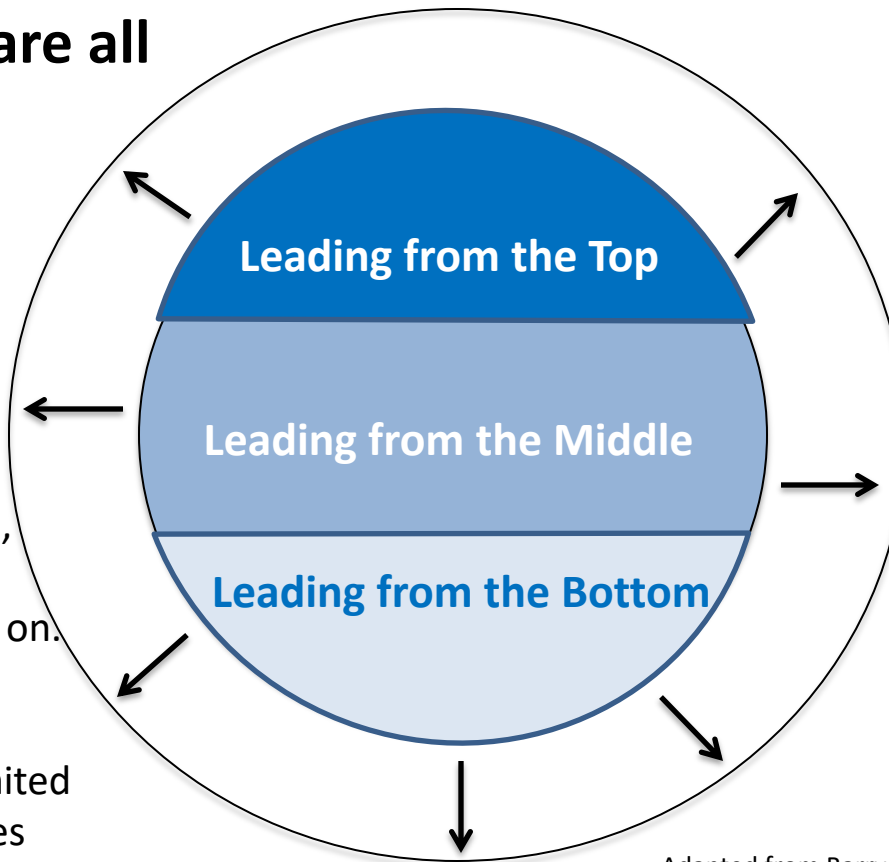


Adapted from S. Covey
The 7 Habits of Highly Effective People

Most likely you are all of these.

Top Leaders have overall responsibility for some segment of the organization or some organizational function, whether as division head, project manager, team leader, instructor, and so on.

Bottom Leaders have limited control over the resources needed to move projects or initiatives forward.



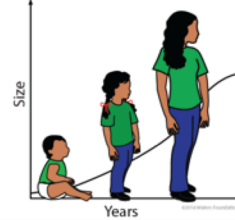
Middle Leaders attempt to function between the conflicting needs, demands, and priorities of others.

Adapted from Barry Oshry and David DeVane

Seeks to understand the big picture



Observes how elements within systems change over time, generating patterns and trends



Recognizes that a system's structure generates its behavior



Identifies the circular nature of complex cause and effect relationships



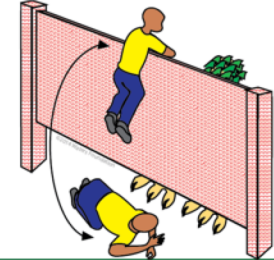
Makes meaningful connections within and between systems



Habits of a Systems Thinker



Changes perspectives to increase understanding



Surfaces and tests assumptions



Considers an issue fully and resists the urge to come to a quick conclusion



Considers how mental models affect current reality and the future



Uses understanding of system structure to identify possible leverage actions



Considers short-term, long-term and unintended consequences of actions



Pays attention to accumulations and their rates of change



Recognizes the impact of time delays when exploring cause and effect relationships



Checks results and changes actions if needed: "successive approximation"





What are your strengths and challenges?

Quickly review each card and make 3 piles:

1. Strengths

Habits you practice regularly

2. Growth Areas

Habits that need more practice

3. Don't understand















"I have no idea what this is about."

Choose 2 of your strength Habits and be ready to tell a story of how you practiced those Habits recently.

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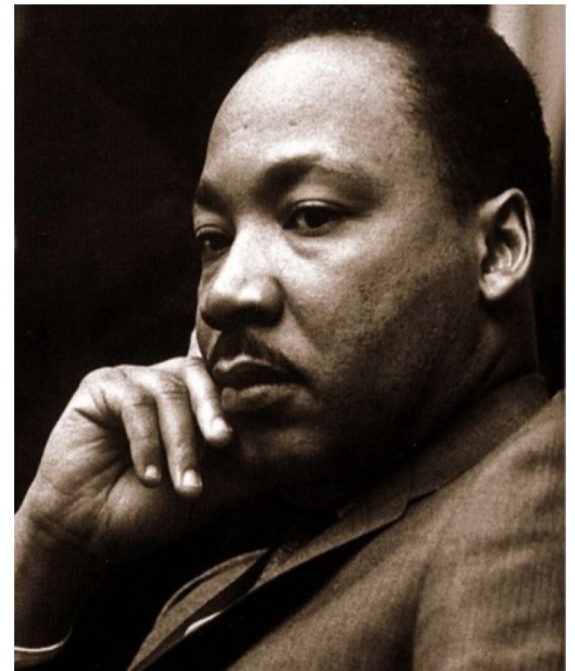
HABITS OF A SYSTEMS THINKER REFLECTION MATRIX

		5/2					
Connections							
Big picture		*					
Changes perspectives		*					
Mental models		Δ					
Patterns & trends							
Surfaces & tests assumptions		Δ					
System structure							
Circular cause & effect							
Time delays							
Short, long-term & unintended consequences							
Resists the urge to come to a quick conclusion		Δ					
Accumulations & rates of change							
Identifies leverage							
Successive Approximation		*					

Systems Thinkers We Know

It really boils down to this: that all life is interrelated. We are caught in an inescapable network of mutuality, tied in a single garment of destiny. Whatever affects one directly affects all indirectly.

Dr. Martin Luther King, Jr.

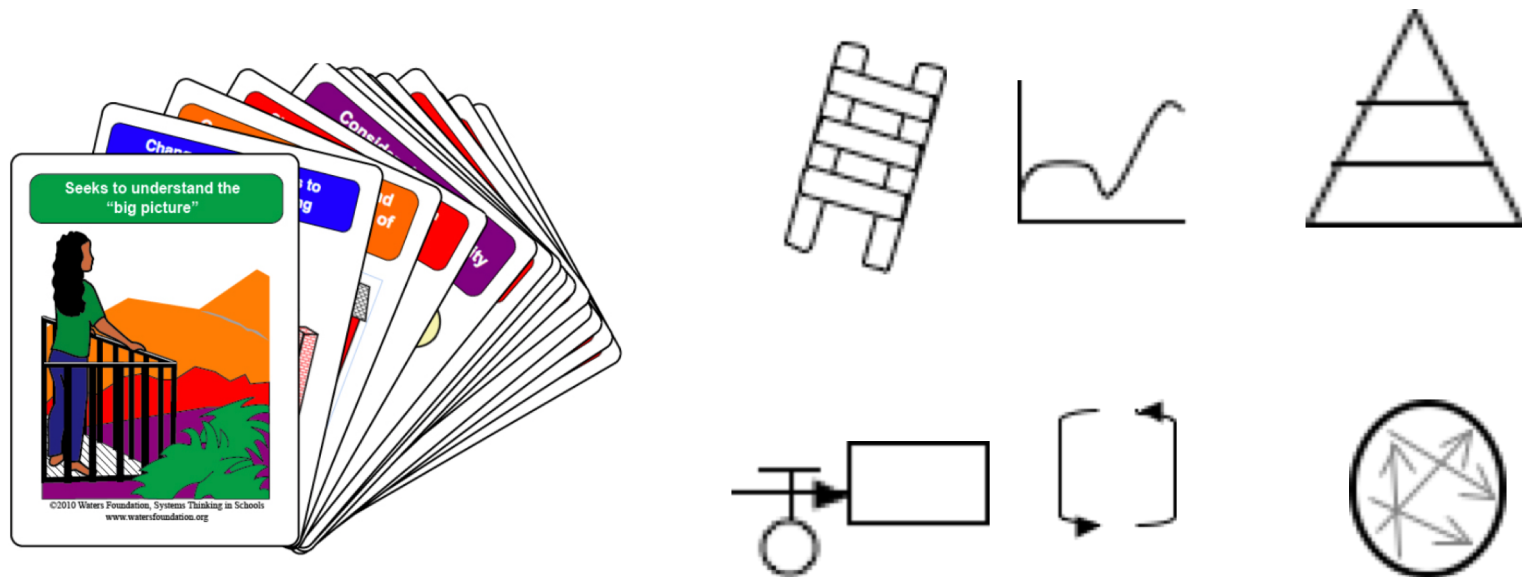




Think about your leadership legacy.
When people choose you as a leader they admire,
which **Habits** would they identify as those you
model and practice consistently?

What is systems thinking?

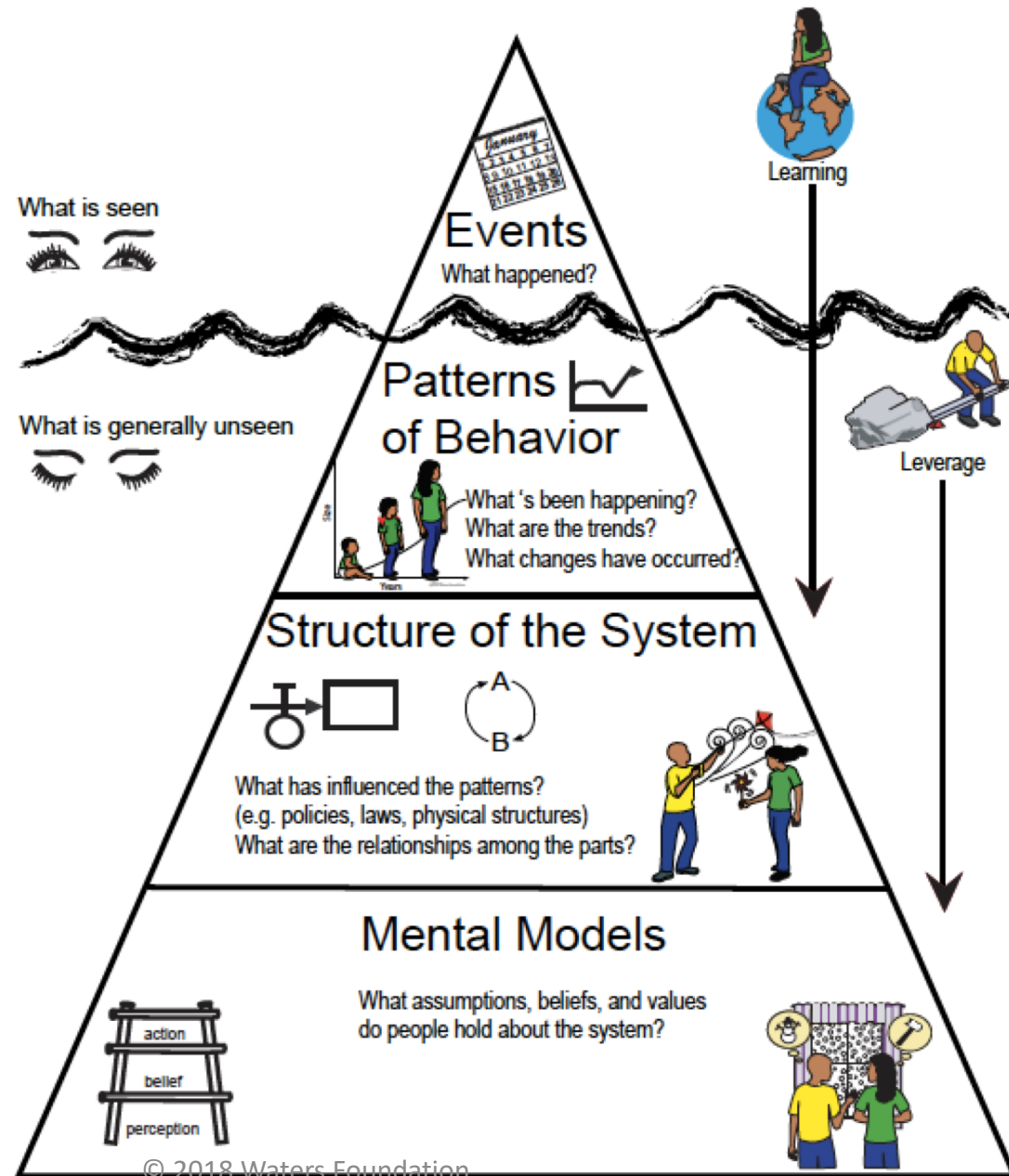
Systems thinking offers us a powerful new perspective, a specialized language, a series of Habits and a set of tools.



Iceberg... Seeing What's Below the Surface

The Big Picture

Seeks to understand the
“big picture”

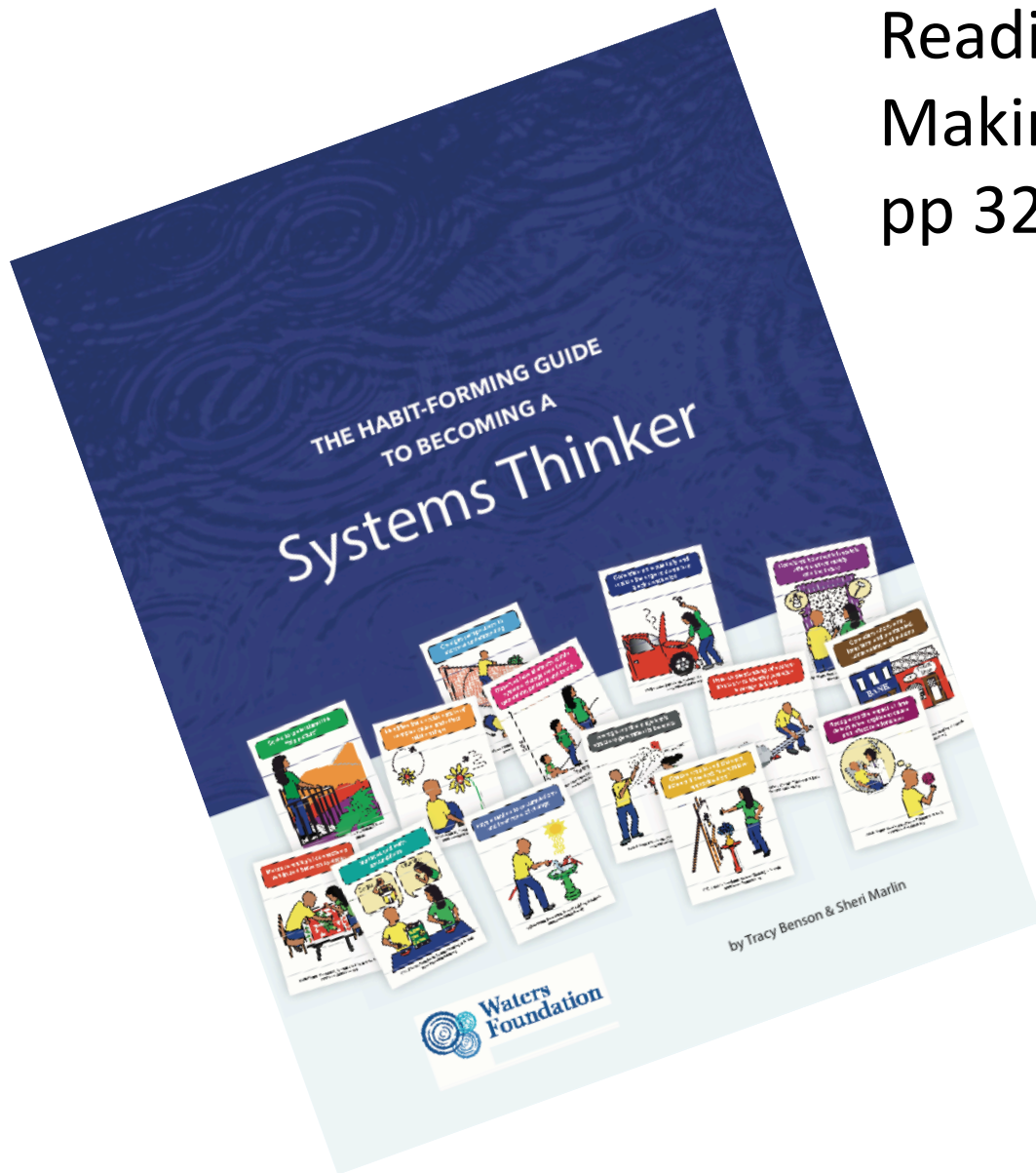


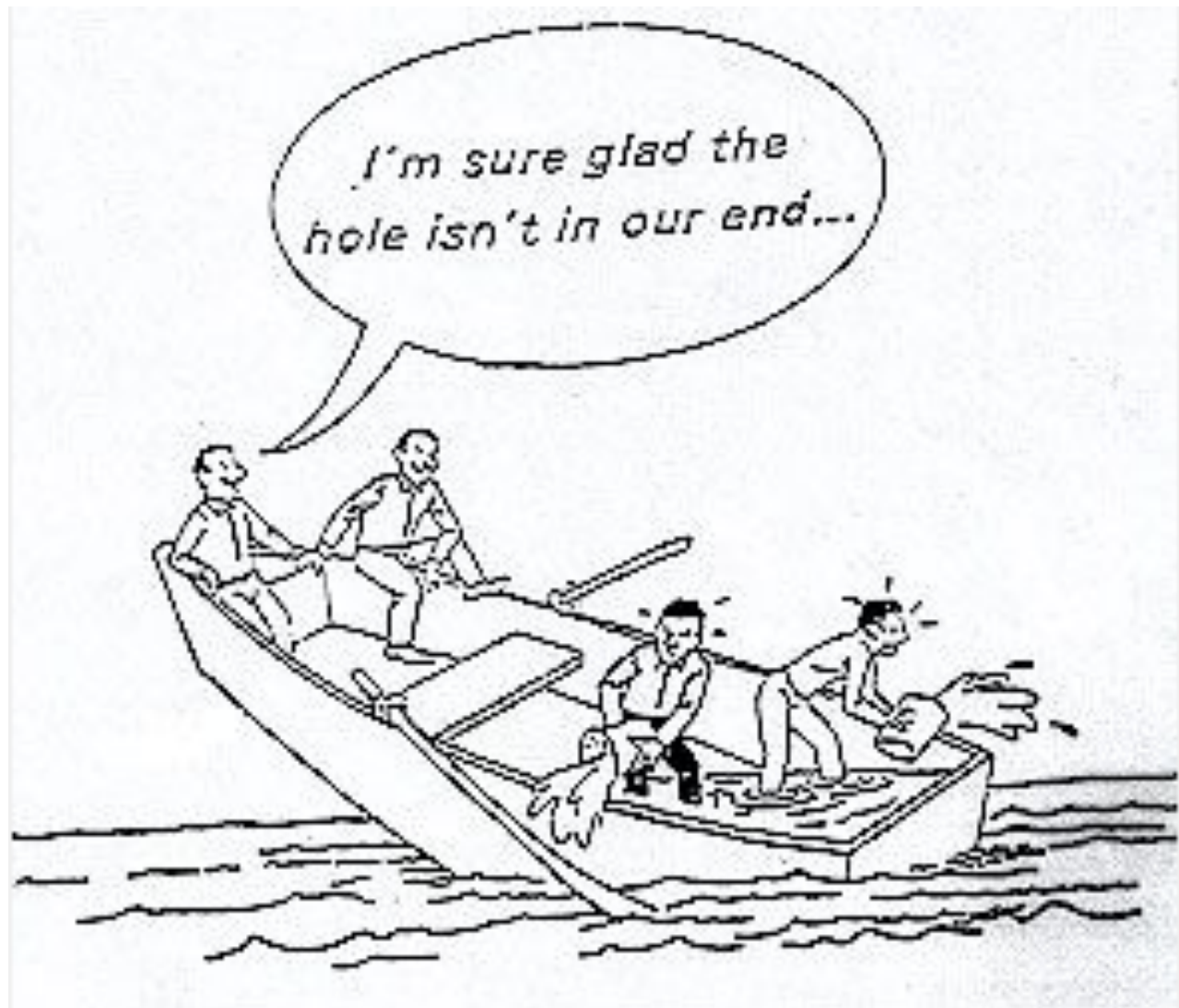
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Adapted by Systems Thinking in Schools, Waters Foundation, www.watersfoundation.org, from Innovation Associates, Inc.

Reading, Reflection & Making Connections pp 32-33



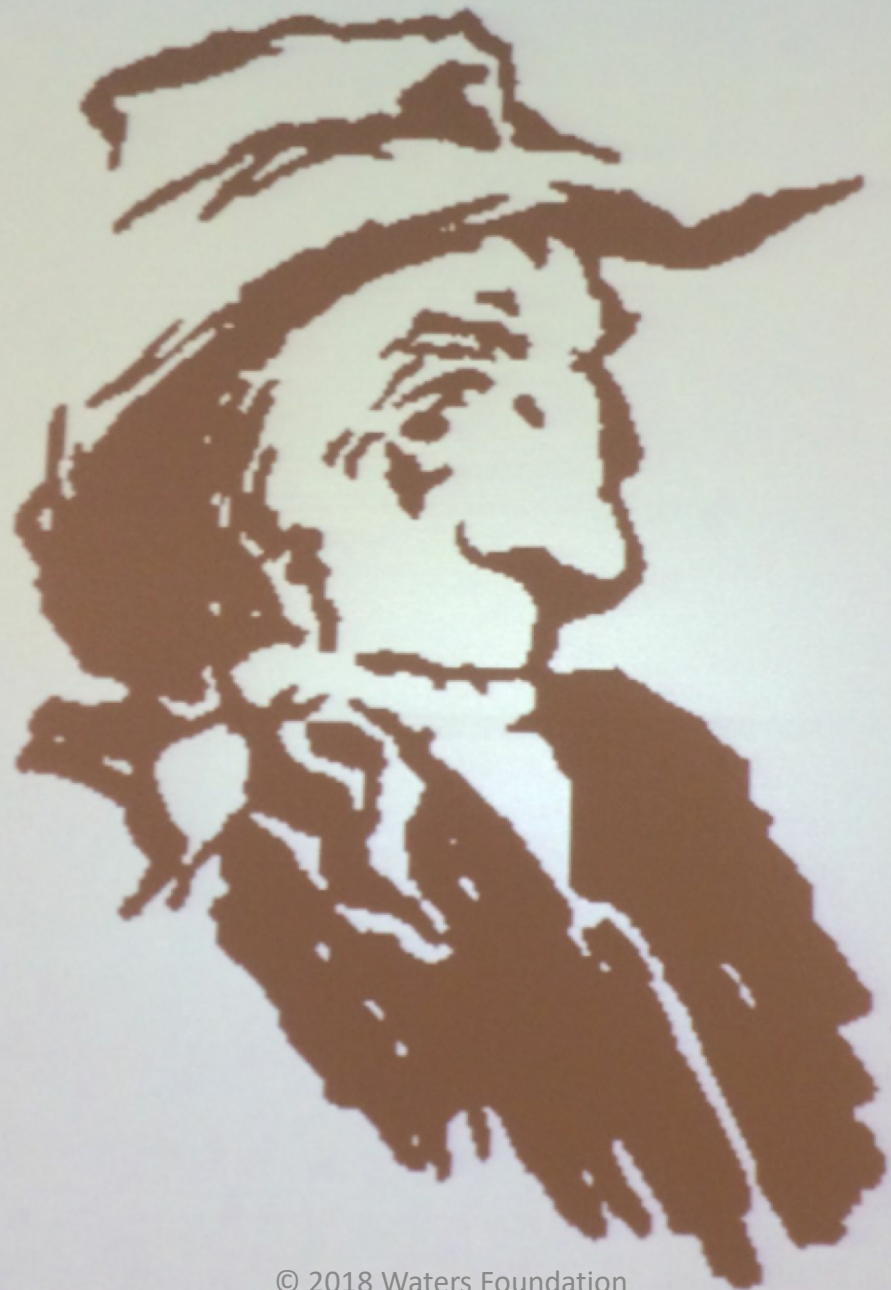


Mental Models

Mental models are deeply ingrained assumptions, generalizations, or even pictures or images that influence how we understand the world and how we take action.

Peter Senge, *The Fifth Discipline*, 1990







Practice the Habit

Think of a time when you shared your mental model about something you care about.
What did you learn about yourself when you shared it?

How can you invite others to share their mental models?

How do you respond when mental models differ?

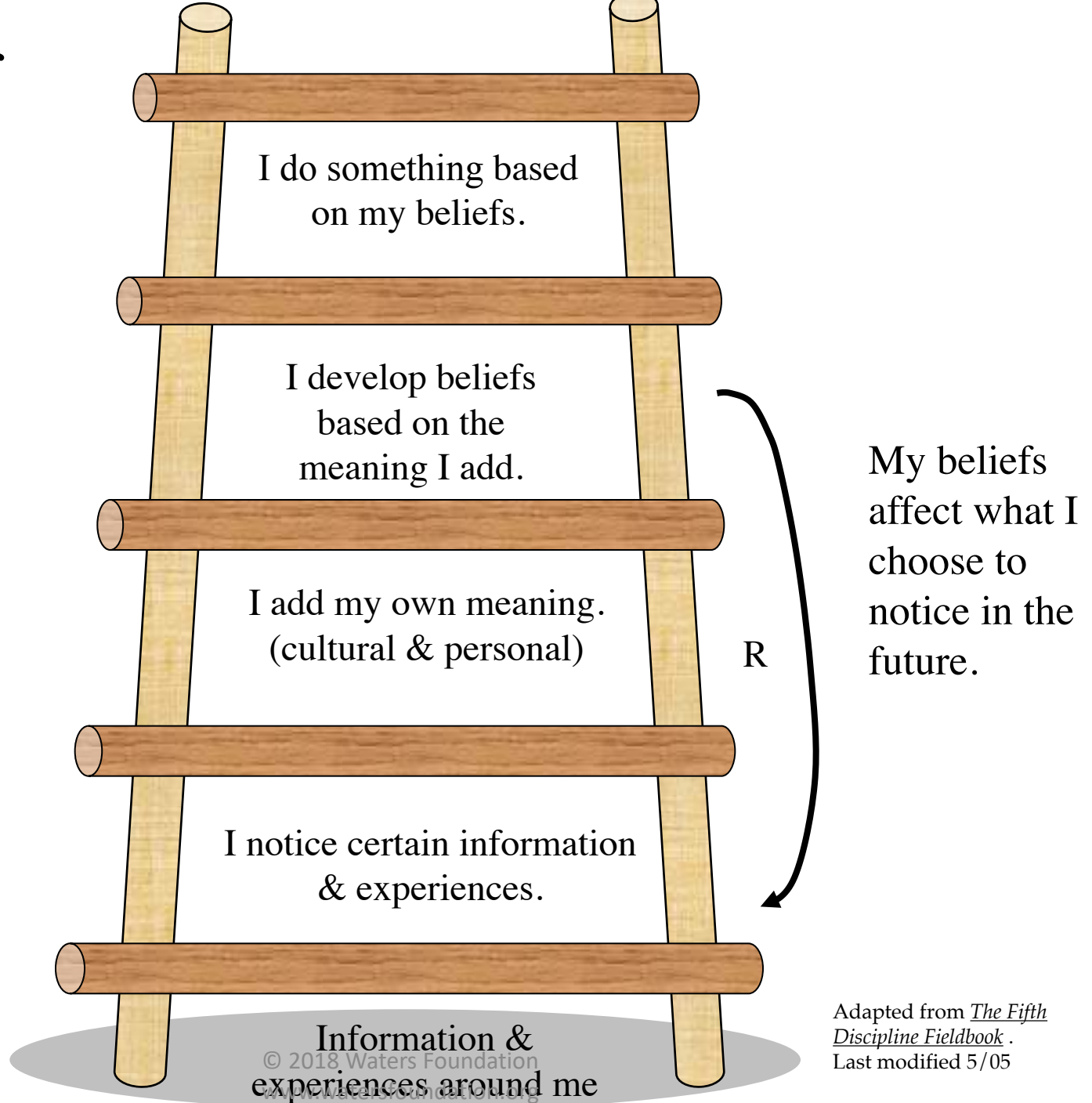
Think about the last meeting you attended or facilitated. It could be a work-related meeting or a community-based gathering. What was your impression of the meeting?

How did people hear and interpret what was being said?

How did the facilitator provide participants opportunities to voice their interpretations?

How might you interpret silence?

Ladder of Inference



Adapted from *The Fifth Discipline Fieldbook*.
Last modified 5/05

Managing your Ladder of Inference

- **Reflection**

- Try to suspend judgment
- Become more aware of your own thinking and broaden your observations



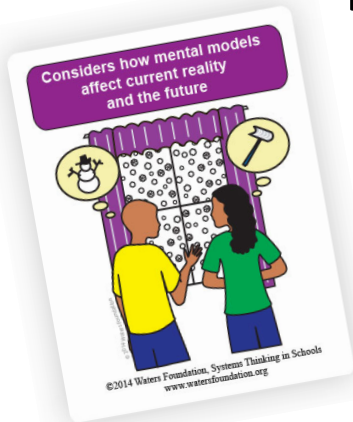
Using the Ladder of Inference

- **Reflection**

- Try to suspend judgment
- Become more aware of your own thinking and broaden your observations

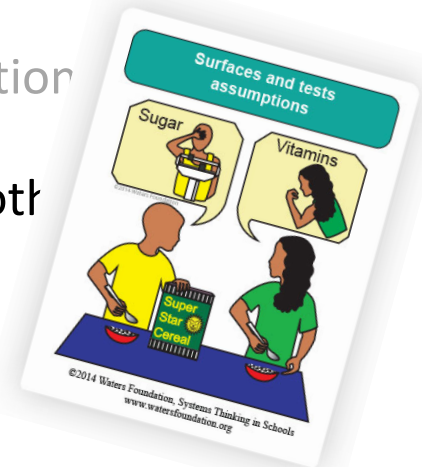
Inquiry

- Inquire into other's thinking and reasoning
- Ask open-ended questions that seek clarification



Using the Ladder of Inference

- **Reflection**
 - Try to suspend judgment
 - Become more aware of your own thinking and broaden your observations
- **Inquiry**
 - Inquire into other's thinking and reasoning
 - Ask open-ended questions that seek clarification
- **Advocacy**
 - Make your thinking and reasoning visible to others by describing what influenced your thinking and your actions



Practice Scenarios

- With a partner select a scenario
- Consider the problem
- Select relevant Habits of Systems Thinker
- Use the Ladder of Inference
 - Reflection, Inquiry and/or Advocacy
- Consider Unintended Consequences of Possible Solutions

Practice the Habit

A systems thinker looks ahead and anticipates not only the immediate results of actions, but also the effects down the road. Think about a decision you are about to make that will lead to action. Read and respond to the following questions to help you consider both expected and unexpected consequences.

What are possible unintended consequences of your decision? They might involve reactions, attitudes, results or new challenges.

Identify the benefits and trade-offs of your decision. How will you minimize the impact of the trade-offs? What structures can you put into place (e.g. communication, safeguards, modified practices) to address the potential impact of trade-offs?

Will your decision involve short-term hardship to achieve long-term success? If so, what is your plan to minimize the challenges you expect to face in the short run? If not, describe the road to long-term success.

WHAT'S NEXT?

Systems thinkers carefully consider the interrelationships among key elements that influence change over time. Their full attention to the consequences of actions and the patience required when responding thoughtfully is important in the next chapter. Resisting the urge to come to a quick conclusion is a high priority for systems thinkers.



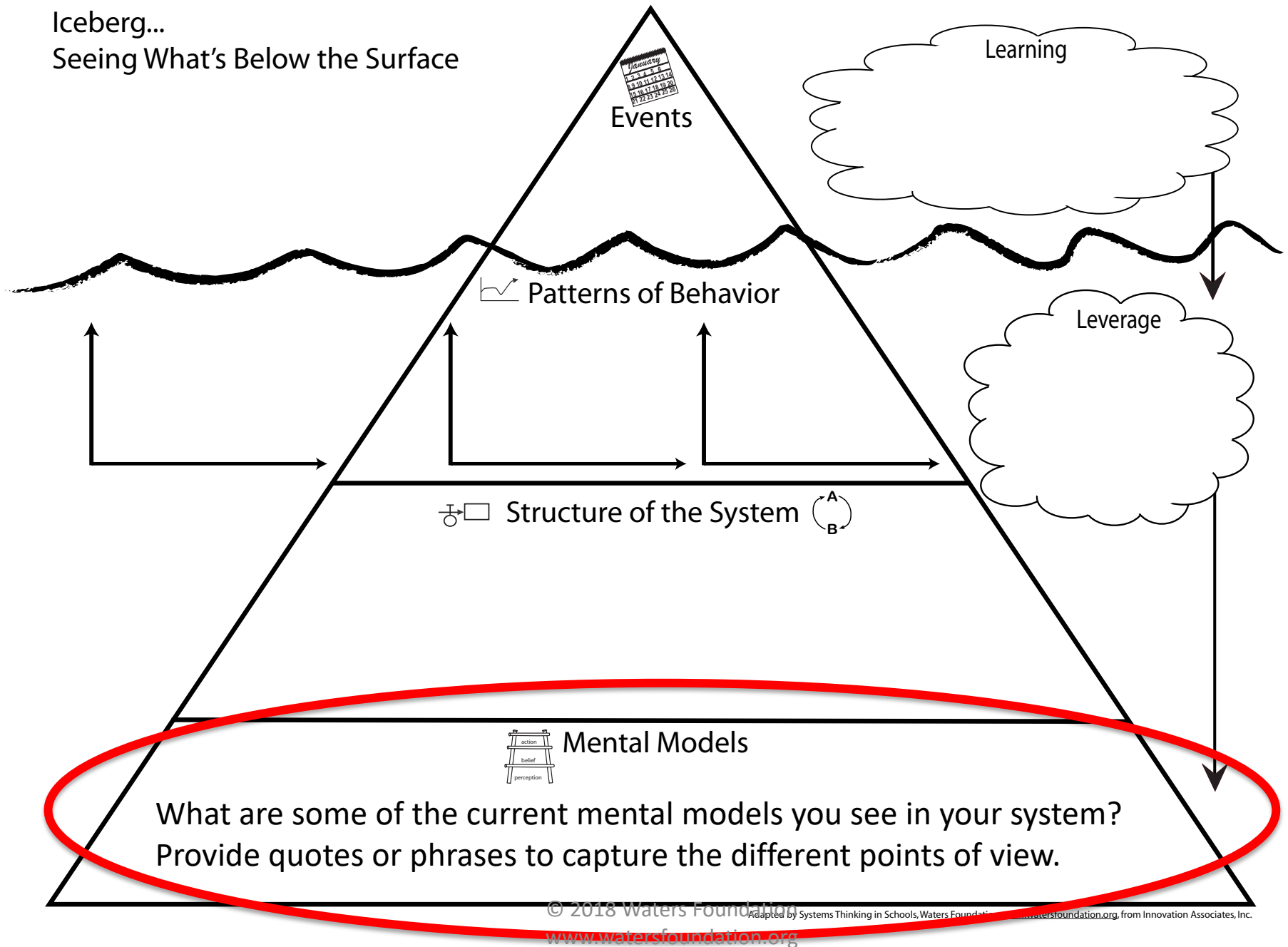


What is seen

Systems Thinking helps
one understand what is hard to see

Systems Thinking helps you see the system as a whole

Iceberg...
Seeing What's Below the Surface





What role do mental models play in your work setting?

What are some **mental models** you may be holding (about the system, about others) that may be **barriers to achieving your desired outcomes?**



Practice the Habit

Identify a situation where you might be able to gain some clarity by changing your perspective. Apply the following questions to the situation to help you in seeking additional perspectives.

1. How does my point of view influence my understanding of the situation?

2. How might a different point of view inform my understanding of the situation?

3. Who could I approach to help me gain new perspectives on the situation?

4. If I truly understood that other person's perspective, what would I notice about my current situation?

5. How do different points of view influence my understanding of the system?



Today, I learned...

Tomorrow, I hope to learn...