

The Sustainable Enterprise Learning Guide

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Instructor Materials

Chapter 2

Mental models for sustainability: Introduction
to mental models

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Editors' Notes:

These materials are intended for use by academics and practitioners. In order to simplify the language, editors have determined to use the terms instructors, learners or participants rather than facilitators, professors or students.

ACTIVITY INTRODUCTION AND OVERVIEW

These activities are Lead-in Activities that precede a facilitated (recommended) Appreciative Inquiry process.

Objectives




Upon completion of this activity, learners will/will be able to:

1. Provide a space for personal reflection
2. Surface and make more concrete basic assumptions
3. Examine both personal and collective mental models
4. Move toward alignment of conflicting mental models and values

Audience Description

These activities are designed for the undergraduate, or graduate/practitioner level learners.


ACTIVITY PREPARATION

Activity Names	Mapping the US Drawing a common object	
Preparation Checklist	<p>Instructor preparation, media and materials:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Assign pre-reading and the pre-work writing assignment at least a week before the session <input type="checkbox"/> Prepare the ground rules (in power point or on a flip chart/board), and post them in the room <input type="checkbox"/> Have enough chart pads and/or white boards available for each group along with workable/appropriate pens and masking tape or blue tack to post the charts <input type="checkbox"/> Check the room set-up. The Mapping The US activity is more difficult in a room with desks or an amphitheater style arrangement. <input type="checkbox"/> Choose a common object for Activity 2 that is common for all learners. Take cultural background into account. Acceptable objects could be a bicycle, a train, a bus, a telephone, a place of worship, etc. <input type="checkbox"/> Have all your attendance sheets, comment sheets for the metrics and other paperwork in order 	
<p>Timing Flow</p>  	<p>Activity 1: Mapping California</p> <p>Step 1. Imaging the Map</p> <p>Step 2. Moving to California</p> <p>Step 3. Locating California</p> <p>Step 4. Locating other places</p> <p>Step 5. Debrief</p> <p>Activity 2: Drawing a Common Object</p> <p>Step 1. Imaging the Object</p> <p>Step 2. Drawing the Object</p> <p>Step 3. Reviewing the Drawings</p> <p>Step 4. Summary and Debrief</p>	<p>1 minute</p> <p>3 minutes</p> <p>10 – 15 minutes (varies depending on how many learners are asked to explain)</p> <p>(this can vary depending on how many locations are mapped)</p> <p>5 – 10 minutes</p> <p>1 minute</p> <p>10 minutes</p> <p>10 – 15 minutes</p> <p>5 – 10 minutes</p>
Total Time	This can vary significantly	
Pre-reading	 <ul style="list-style-type: none"> • McNichol, T., <i>Appreciative Inquiry Case Study</i>, The Sustainable Enterprise Fieldbook: When It All Comes Together 	
Pre-work	None	

ACTIVITY: INTRODUCTION TO MENTAL MODELS/MAPPING THE UNITED STATES

In keeping with the chapter’s focus on Mental Models, the theme of the following activities can be used to demonstrate that individuals come to their positions from different frames and life experiences. In a time of volatile change such as we are experiencing now, the tendency is to charge forward rather than to step back, now and then, to take the long view. If sustainability is truly the driving force of innovation then it must bring equity to all—the planet as well as the people living now and future generations.


These two activities are designed to demonstrate long-held assumptions that our perceptions as well as our world view are not as aligned with others as we think. Activity: Mapping the US demonstrates participants’ perception of place.

Instructor Notes	Activity Description
Mapping the United States Step 1. Imagining the map	 <p>Say: Please close your eyes and imagine a map of the United States as if it were laid out in this room. Visualize the west coast, the east coast, Canada bordering on the northern part of the US and Mexico along its southern borders. This about where you would locate Hawaii?</p> <p>Do: Give sufficient time – 1 minute – for the visualization.</p>
Step 2. Moving to California	<p>Say: Now, stand up. Ignore what anyone else is doing – they have their own mental model of the map. Keeping your mental map in mind, locate California and stand in the room where you imagine California to be. (Remember, ignoring where others might stand.)</p> <p>Do: Ask everyone to stop.</p>
Step 3. Locating California	<p>Ask: (Note: ask the same question of several individuals) Why is your California "here" and others’ Californias "over there?"</p> <p>Expected responses:</p> <ul style="list-style-type: none"> • California is here not there. • I do not know why they are over there. <p>Ask: (the group) Why isn't everyone in the same place?</p> <p>Expected response:</p> <ul style="list-style-type: none"> • We are envisioning the map differently.
Step 4. Locating other places Note: you can repeat this exercise as many times as you wish to make the point. If you choose to repeat the exercise, conduct Steps 1 – 3 again using different locations– such as Washington, DC which is much smaller than	<p>Say: Now locate (on your mental map) and then go stand at Washington DC.</p> <p>Ask: California is a big state and Washington DC is pretty small by comparison, why are we still standing in different places?</p> <p>Expected response:</p> <ul style="list-style-type: none"> • Our mental maps are different.

Instructor Notes	Activity Description
<p>California.</p> <p>(Exercise posted to Ai Listserv by Bobbi Bilinski, January 9, 2008; aillist-bounces@lists.business.utah.edu)</p>	
<p>Step 5. Debrief</p>	<p>Say: Let's talk about your mental models for the map of the US. Describe your mental map of the US using gestures to explain where in the room you imagined California [or other locations] to be.</p> <p>Do: Have several learners describe their maps.</p> <p>Ask: Is it easier now to understand why [learner name] and [learner name] stood in different places?</p> <p>Expected response:</p> <ul style="list-style-type: none"> • Yes <p>Ask: What else do people have mental models about? Give me some examples.</p> <p>Expected responses:</p> <ul style="list-style-type: none"> • Everything • What is a pleasing meal • What is acceptable behavior • What makes an effective team leader • The qualities and characteristics of an effective leader <p>NOTE: If learners do not focus on work ask them to give examples form the workplace.</p>

ACTIVITY: INTRODUCTION TO MENTAL MODELS/DRAWING A COMON OBJECT

Activity: Drawing a common object demonstrates learners' unique perception.

Instructor Notes	Activity Description
<p>Drawing a common object Step 1. Imaging the Object</p> <p>(Note: This activity was posted to Ai listserv by Ron Smith, January 8, 2008; aillist-bounces@lists.business.utah.edu)</p>	 <p>Say: Now I'd like you to take out a writing implement and a piece of paper for a picture (or draw line sketches) of _____ [give them one common item such as a lawn mower, bicycle, a train, a bus, a telephone, a place of worship, etc.]</p> <p>Note: Pick an object that everyone will have seen – this becomes more difficult when the class is a diverse class form different cultures – in that case you might ask them to draw a “place of worship.”</p>

Instructor Notes	Activity Description
Step 2. Drawing the object	<p>Do: Give them 5 minutes to draw whatever object you gave them to draw and then call time. Have the learners post their drawings on the board/wall so everyone can see the different versions of the same thing.</p> <p>Say: I know some of you are more comfortable with drawing than others, but I appreciate your work so we can make some points about mental models.</p>
Step 3. Reviewing the Drawings	<p>Do: Look at the drawings and encourage the learners to do so as well. Pick out several differences and ask learners about these.</p> <p>Ask: Why did one person draw a ride-on mower and another a push mower? Was it related to socio-economic status or other factors?</p> <p>Expected Response:</p> <ul style="list-style-type: none"> • Experiences differ. • What they have/used/see regularly will help frame their perspective of what a/an {insert object} looks like. <p>Do: Conduct a discussion having the learners focus on what experiences they have on which they based their drawing.</p>
Step 4. Summary and Debrief	<p>Ask: What would happen if a company was investing planning time and resources to start manufacturing one of these items without reaching a shared image or a shared goal?</p> <p>Expected Response:</p> <ul style="list-style-type: none"> • Operations would not know how to set up the manufacturing plan • Procurement would not know what resources were needed <p>Say: Obviously they would not want to do that.</p> <p>Ask: Why would you do the same thing with management, with assumptions, with putting a theory into practice that isn't shared or understood or clarified?</p> <p>Expected Response:</p> <ul style="list-style-type: none"> • They shouldn't <p>Say: Production depends on alignment at all levels of the company for optimum efficiency of resources.</p>

ACTIVITY MEASUREMENT

QUESTIONS FOR REFLECTION

LEARNING OBJECTIVES

1. Surface and make more concrete basic assumptions
2. Examine both personal and collective mental models
3. Move toward alignment of conflicting mental models and values

1. On a scale from 'zero' to 'ten' was this exercise useful for demonstrating basic assumptions individuals hold about their own mental models?

(10 = Extremely useful; '0' = useless)

Extremely useful				Reasonably useful				Useless		
10	9	8	7	6	5	4	3	2	1	0

Comment: _____

2. On a scale from 'zero' to 'ten' was this exercise useful for demonstrating the importance of alignment of collective mental models and values?

(10 = Extremely useful; '0' = useless)

Extremely useful				Reasonably useful				Useless		
10	9	8	7	6	5	4	3	2	1	0

Comment: _____

3. On a scale from 'zero' to 'ten' will you take something of **value** back to your workplace as a result of this introduction to the Mental Models?

(10 = very important; '0' = not important)

Highly valuable				Reasonably valuable				Not of value		
10	9	8	7	6	5	4	3	2	1	0

Comments: _____

FOLLOW-UP: RESOURCES/ACTIONS

None suggested.