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| Stage:  Run |  | BoundEx |

This facilitator guide provides step-by-step instructions for running BoundEx, including suggested facilitator scripts (italic text) and “Pro Tip” pop-ups, which contain tips for the facilitator to take into consideration as they guide participants through the exercise.

While the facilitator may choose to adapt some of the script language or other execution guidelines depending on personal styles and available resources, we recommend following the guide as closely as possible to ensure that participants receive adequate training on each of the concepts and objectives.

**Exercise Overview**

This practical exercise (PE) involves a class of participants operating in small teams to explore a real-world sociocultural system (SCS). Participants first study a bounded version of the SCS in small teams. As they study the SCS via provided support materials, each team creates a timeline of key historical events, develops visual representations of the SCS, proposes potential interventions to address the problematic aspects of the SCS, and envisions how the SCS might respond to those interventions. Each team proposes/’pitches’ potential interventions from that perspective to the rest of the class. Participants are then re-assigned to new teams with one member from each of the initial teams (i.e., each team member has a different perspective). These new small teams work on integrating their perspectives and representations of the SCS to develop a more complex understanding of the whole SCS, identify leverage points, and propose interventions for the broader SCS. Each new team proposes/’pitches’ potential interventions for the broader SCS to the rest of the class and provides feedback to the other teams. In the final stage of BoundEx, the facilitator leads a whole-class discussion about the challenges and lessons learned during the PE, as well as recapitulating the learning objectives and SCS concepts addressed.

**Sociocultural Systems Thinking Concepts and Skills Addressed**

* Multiple players/stakeholders
* Individual and collective goals
* Goal conflict
* Interdependence and interaction
* Co-adaptive cycles
* Nested social systems
* Historical influence
* Environmental influence
* Second and third order effects
* Self-organization
* Feedback loops
* Boundaries
* Timelines
* Synthesis
* Leverage points
* Supporting structures

By the end of the exercise, participants should be better able to:

2.1. Understand the range and nature of stakeholder groups in SCS

2.2. Understand the structural characteristics of SCS

2.3. Understand the manifestations of SCS structural characteristics

3.1. Visually represent SCS interdependencies and the dynamic nature of SCS

3.2. Examine multiple perspectives and historical background

3.3. Translate SCS concepts to envision promising, sustainable interventions

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|  | *Preparation* |

This table includes preparatory information for BoundEx:

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| Recommended number of participants | 8-12 (but can potentially accommodate 3-16) |
| Estimated run time | 3 hours |
| Materials needed | Participant and facilitator packets; TV, projector, or laptops (for watching the videos)  Internet access (to access the videos and articles)  Printed copies of supplemental materials (if there are not enough laptops or phones for each group/internet access)  Writing tools: sheets of paper, pens.  Whiteboard (for participants/teams to use to present their findings) |

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|  | *Execution Guidelines* |

At the beginning of the session, participants are informed of the nature and duration of the exercise. The facilitator will then assign participants into teams for the first stage of the exercise following these guidelines:

* If there are 3 or 4 participants, each individual participant will be the “team” for the first stage of the exercise.
* If there are 6 or more participants, it is recommended that the facilitator assigns at least two participants per team so that there is teamwork involved during the first stage of the exercise.
* If there are 12 or more participants, it is recommended that the facilitator creates four teams to minimize the number of teams with 4 members (2-3 team members is ideal for this task).

Begin by briefing participants with the following:

*The group exercise you are about to complete involves learning about real-world issues and events from Colombia, articulating your own understanding about what is taking place in the region, and proposing potential ways to address the issues. The full exercise will take a total of approximately 3 hours.*

Then, if there are only 3-4 participants, continue:

*Each one of you will first focus on an issue affecting the region individually for the first hour and will deliver a 10 minute presentation of your findings to the rest of the class. During the second half of the exercise, all of you will complete a similar task as a team. At the end, we will all have a group discussion about the exercise and what it teaches us about sociocultural systems thinking.*

If there are 6 or more participants,

*Each one of you will be assigned to a 2-4 person team and each team will focus on an issue affecting the region for the first hour. In an hour, you team will deliver a 10 minute presentation of your findings to the rest of the class. During the second half of the exercise, you will be assigned to a different team and complete a similar task with them. At the end, we will all have a group discussion about the exercise and what it teaches us about sociocultural systems thinking.*

And make sure participants understand the overview:

*Do you have any questions at this point?*

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|  | *Team Research and Discussion* |

The facilitator will assign learners to their teams and distribute the Systems Thinking Introduction handout (Attachment A) and BoundEx handouts (see Attachments B-E). The BoundEx handouts specify the tasks to be completed and the materials (i.e., videos, articles, visuals) corresponding to the team’s topic. The facilitator will also distribute any other supplies participants may need to either review the materials (e.g., laptops) or complete the activity (e.g., sheets of paper and pencils). The facilitator must ensure each team has enough room to be able to play video and discuss without interfering with each other. Attachment F includes a PowerPoint presentation to support facilitation of BoundEx.

Once all participants are in their teams and have their handouts, the facilitator will review the instructions for this first stage of the exercise:

*During the first stage of this exercise, your team (or you) will review the materials provided to you in order to get familiar with your topic. As your team reviews these materials, keep in mind that you will be asked to: (a) create a timeline of the key events influencing the situation, (b) visually represent the players involved, (c) propose potential interventions to address the situation, and (d) anticipate how your intervention might impact the situation and how different players might react.*

*In approximately 1 hour, your team will have to share your timeline, representation, proposed intervention, and envisioned impact/reactions to the rest of the class. Make sure you manage your time appropriately so you can be ready to present in 1 hour.*

*Do you have any questions at this point?*

At this point, the primary task of the facilitator is to answer any questions participants might have about the materials or each of the tasks they need to complete. For the most part, participants should work independently so the facilitator should let them struggle when they encounter challenges. It is part of the learning experience.

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| **Pro Tip** | This is a good opportunity for the facilitator to quietly observe and take notes on how the different teams approach the task and which challenges they encounter along the way. The notes will be very useful to link SCS concepts to concrete learner experiences during the final debrief. |

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| **Pro Tip** | Provide frequent time reminders to help teams keep track of time. If they have not started drafting timelines and visual representations after the first 30 minutes, you may want to encourage them to start working on the products. |

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|  | *Pitch Intervention to Other Teams* |

After approximately 1 hour, the facilitator will stop all teams and ask each of the teams to present their findings to the rest of the class. Instructions to participants may be:

*At this time, your team has up to 10 minutes to explain to the rest of the class what you learned about your situation and what you envision as a promising intervention. Leverage the timeline and visual representation your team created to explain your understanding and proposed intervention. Once you finish your intervention, the rest of the teams will have an opportunity to ask questions and point out limitations of your proposed intervention. When other teams are presenting, you will have an opportunity to ask questions to other teams and critique their interventions.*

*Do you have any questions before we start the presentations?*

Teams are expected to use the whiteboard to support their presentation. Each team will be required to cover these four topics (as listed in their handout, see Attachment B-E):

1. Timeline of key landmarks and events leading to the current situation.
2. Visual representation of the players involved and their relationships.
3. Proposal for a potentially successful intervention and rationale.
4. Description of anticipated impact on the SCS and potential reactions/adaptations.

During the presentation, the facilitator will pay particular attention to the extent to which:

1. The proposed timeline and representation reflect SCS understanding.
2. The proposed intervention acknowledges SCS characteristics.
3. The team was able to anticipate likely adaptations of stakeholders to intervention.

The general assessment guide can provide guidance for the facilitator to evaluate the extent to which the team satisfies these criteria. However, it is important to keep in mind that, when used for training purposes, the primary goal of identifying deficiencies in SCS understanding is to leverage them during the final debrief to enhance the participants’ SCST skills.

After each team presents, the facilitator will encourage other teams to ask questions and critique the presenting team’s proposed intervention. Ideally, other teams will bring up relevant aspects outside of the SCS on which the presenting team focused that can impact the success of the intervention. If the other teams are not participating, the facilitator may want to ask other teams about relevant aspects of the topic they covered and how they think it may impact the proposed intervention.

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|  | *Integration into a Broader SCS* |

At the end of the presentations, existing teams will be disbanded and new teams are created. The new groups will have one member from each of the different teams (i.e., each member with a different topic/perspective in stage one) and the new team task will be to address the same questions about the broader SCS (e.g., Colombia). Note that, if there were only 3-4 participants in stage one, there will only be one team at this stage. Each member will bring the timeline, visual representation, proposed intervention, and anticipated consequences of their ‘bounded’ SCS to their new team.

During this stage, each team will be asked to integrate their disparate timelines and representations into a consolidated representation of the broader SCS. They will also be asked to identify leverage points and propose promising approaches to intervene in this broader SCS. Participants will work in their teams for approximately 20 minutes and then share, contrast, and discuss their proposed interventions with the other teams. The facilitator will point out discrepancies among proposed interventions and encourage cross-critiquing of each other’s proposals.

Instructions to participants may be as follows:

*You are now in a new team with people who focused on a different issue during the first stage of this exercise. Your task is to revisit the timelines and representations that each of you created during the earlier stage and integrate them into a consolidated representation of the broader situation. Then, use this consolidated representation to identify leverage points for potential intervention. Discuss with your team how you expect the intervention to impact the system and how you expect the players involved to react or adapt to the intervention. After approximately 20 minutes discussing this within your team, you will share proposed interventions across teams and critique each other’s proposals.*

*Do you have any questions at this point?*

During this stage, the facilitator will answer any questions participants might have about the task. However, teams should work on their own to attempt to integrate these disparate perspectives and develop promising interventions.

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| **Pro Tip** | This is a another good opportunity to quietly observe and take notes on how the different teams approach the task and which challenges they encounter along the way. The notes will be very useful to link SCS concepts to concrete learner experiences during the final debrief. |

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|  | *Debrief Guide* |

During the last 30 minutes of the exercise, the facilitator will lead a discussion about the PE with participants. Initial questions will be focused on the participants’ experiences while completing the PE, the challenges they encountered, the strategies they used, and the lessons they learned. The facilitator will build on the participants’ responses and relate them to the target learning objectives and SCS concepts (e.g., multiple players, goal conflict, leverage points). The facilitator will also lead a discussion about the relevance of the PE and SCS to operational settings. Taking good notes during the conduction of the PE can be invaluable this final debrief.

Potential facilitator questions may include:

*During the first stage, what was the most challenging part about trying to visually represent a sociocultural system? How did you overcome those challenges?*

*Did you find identifying leverage points and developing potential interventions challenging? Why? (Or why not?) How did your team overcome those challenges?*

*During the second stage, did you find it challenging to integrate your teammates’ respective understandings into a single, coherent representation? Why? (Or why not?) How did your team overcome those challenges?*

*How did your understanding of the system in question change throughout the exercise? Do you think it was useful to begin by exploring one subsystem first? Why? (Or why not?)*

*If you were to expand the SCS of interest beyond the one in the second stage, where would you place a broader boundary? Which players outside the current system boundaries would you be interested in including?*

*How, if at all, was this exercise relevant to operational situations?*