

SESSION AT-A-GLANCE	WHO?	HOW LONG?
Introduction	Facilitator	10 minutes
The Game	Facilitator, audience	10 minutes
Debrief and Discussion	Facilitator, audience	15 minutes

Sudoku Game

Why Use This Game

- To explain what a change concept is.
- To show how change concepts can be used.
- To help leaders understand why they need to provide change concepts to improvement teams.

Target Audience

Senior staff who are leading improvement efforts in their organizations.

Type of Game

A demonstration with everyone participating.

Key Concepts

- There is a growing body of information about the types of changes that will result in improvement in the delivery of health care services.
- From this information we can develop general notions or approaches to improvement – that is, change concepts – that can be very helpful to teams trying to make changes that result in improvement.
- It is leadership’s responsibility to provide these change concepts to teams.

Source, History and Resources for More Information

For more information about change concepts, see Langley et. al., “*The Improvement Guide*,” San Francisco, Jossey-Bass, 1996.

Materials

For this game, you will need:

- The Sudoku Puzzle, one copy for each participant (see Attachment 1)
- Flip chart and markers to record the key points of the discussion

Preparation

To prepare for this session:

- Familiarize yourself with the session’s structure and content:
 - Read through the game instructions and key teaching points in their entirety.
 - Practice the game itself.
 - Practice presenting the key teaching points.
- Prepare the room:
 - Arrange chairs around three tables. It is best if the tables are not too close to each other.

- Make copies of the Sudoku Puzzle for each participant. Distribute at least one pen to each table.
- Prepare the “change concept” note you will slip to one participant in Team 3 part way through the game (see game instructions, below, for the text of the note).
- Set up the flip chart so you can capture key points of the discussion after the game.

Playing the Sudoku Game

Welcome and Introductions

To begin the game, welcome participants and thank them for their participation. If necessary, ask individuals to introduce themselves to the group.

Learning Objectives

Tell participants that by the end of the session they will:

- Understand what a change concept is.
- Understand how change concepts can be used for improvement.
- Appreciate senior leadership’s role in providing change concepts to improvement teams.

Agenda

Provide a brief description of the session’s primary components:

1. Background to the Sudoku Game.
2. The game itself.
3. Debrief and discussion on what the game shows, and how its lessons can be applied to HIV care.
4. Feedback and close.

Background to the Game

Facilitator’s note

The third question of The Improvement Model is “what change can we make that will result in improvement?” The field of operations research has provided much information on how to answer this question for work processes: minimizing handoffs, for example, will almost always improve work flow. “Minimizing handoffs” is therefore a change concept, what Langley and his colleagues call “a general notion or approach that has been found to be useful in developing specific ideas for change that result in improvement.” As more improvement work takes place in health care, clinical change concepts are being developed. Using patient registries, for example, has become recognized as a change concept for chronic illness care. “Set and document self-management goals collaboratively with patients” is a change concept for HIV care.

In organizations committed to improvement, senior leaders recognize their role in identifying and providing change concepts that are then used by their improvement teams. The purpose of this game is to help senior leaders understand what change concepts are, and then to initiate a discussion among leaders about their role in using change concepts.

Key points to explain to your audience:

- Introduce the idea of change concepts. Use the definition and examples above. It can also be helpful to think up change concepts that would apply to recreational activities or hobbies: “keep your eye on the ball” is a change concept that applies to most sports, for example.
- Explain that this game will help illustrate how change concepts are best used in improvement efforts.

The Game Itself

1. Divide the participants into three teams; have each team sit at a table.
2. Explain the purpose of the game: to work as a team to fill the grid with numbers 1-9 so that each column, row, and 3 x 3 square has the numbers 1 - 9 with no repeats in any column, row, or 3 x 3 square. Sudoku is not a mathematical game.
3. Distribute a copy of the Sudoku Puzzle (Attachment 1) to each participant.
4. Tell the teams that the group will reconvene in 15 minutes to see how far each has gotten.
5. Immediately go to Team 1. Speak only to them, make sure the other teams cannot hear. Tell them you are giving them a change concept for the puzzle. That change concept is: “ a) begin with the one 3 x 3 square with the most numbers already filled in and fill it in completely; b) then pick the one column with the most numbers filled in and complete it; and then; c) pick a row the one row with the most numbers filled in. Repeat square, column, and row.”
6. Team 2 receives no assistance.
7. Hand a note to one team member of Team 3. Try and select the quietest member. The note should read: “Read the following sentence aloud to your team: ‘I think there is a change concept about this puzzle. It has something to do with starting with the 3 x 3 squares, but I can’t remember the details.’”
8. After another 15 minutes, call time.

Debrief and Discussion

- Review results.
 - Ask the teams to report in the following order: Team 2, Team 1 and Team 3.
- Press Teams 1 and 3 to describe exactly how they received the change concept and how it affected their work.
- Discuss the application of this experience to the use of change concepts. Elicit that leadership’s taking a strong role in providing the change concept at the beginning of the puzzle was essential to the team’s success. Team 3’s experience should be similar to relying on a team member to come up with the change concept: it comes along later in the process, and may not be correct or complete. It can be more frustrating than helpful.
- Discuss the application of what they have learned to their own HIV program.
 - What change concepts have they used, and how have they worked?
 - What change concepts might apply to HIV care?
 - What improvement efforts are taking place now in their own programs for which they would like to provide change concepts?

Feedback and Close

- Ask your audience for feedback on whether this session met its objectives. Take notes of their responses on a flip chart, and keep it for your use in the future.
- Schedule an informal follow-up session with any audience member who wants clarification or more information on the game or the concepts you discussed.
- Thank your audience and congratulate them on their hard work and success.

Attachment 1

Sudoku: The Game

5	3			7				
6			1	9	5			
	9	8		4			6	
8				6				3
4			8		3			1
7				2				6
	6					2	8	
			4	1	9			5
				8		1	7	9

Sudoku: The Solution

5	3	4	6	7	8	9	1	2
6	7	2	1	9	5	3	4	8
1	9	8	3	4	2	5	6	7
8	5	9	7	6	1	4	2	3
4	2	6	8	5	3	7	9	1
7	1	3	9	2	4	8	5	6
9	6	1	5	3	7	2	8	4
2	8	7	4	1	9	6	3	5
3	4	5	2	8	6	1	7	9