***The Systems Thinking Playbook*, Linda Booth-Sweeney and Dennis Meadows**
List of activities with short descriptions

Volume One:

Mind Grooving (MM)
Participants experience, explore and reflect on three examples of habitual patterns of thinking. Participants reflect on how often automatic thought processes may obstruct learning, communication and systems thinking. Exercise one shows the effects of socialization through the identification of color, furniture, and flower. Exercise two shows tendency of people to group concepts through the use of a list of words that have a similar theme. Exercise three shows the tendency people have to give automatic responses to questions through the use of rhyming words.
Arms Crossed (MM, TL)
Participants experience a physical analogy (crossing arms/hands in a way that is personally comfortable compared to crossing them in the opposite way) that is similar to the experience of altering habitual ways of thinking or stepping out of our mental ruts and grooves.
Circles in the Air (MM, ST)
Participants draw imaginary circles and view them from different perspectives. This helps show peoples' tendencies to see themselves as being outside the system, and how by changing perspectives, different insights may be discovered.
Thumb Wrestling (MM, TL)
After playing the well-known children's game, participants reflect on the group's mental models about competition and collaboration.
Chevreul's Pendulum (MM, ST, PM)
Participants experience and reflect on the results of a visualization exercise (participants imagine that a pendulum being held by them is moving along a particular trajectory.) that shows the power of personal vision.
Warped Juggle (MM, TL, ST)
Participants experience an exercise (tossing objects in a particular sequence) and then attempt to improve the time taken to accomplish this task. In order to improve their time, they must change their assumptions about what the rules mean. Participants then reflect on mental models of team learning and problem solving. The group may want to look at the Limits to Growth archetype, the iceberg to see how structures influence behavior or how our mental models affect the structures we choose to develop.
Toothpick Teaser (MM)
Given a problem (trying to make four isosceles triangles using 6 toothpicks), participants explore how the way data is presented about a problem, can affect the questions asked and the solutions suggested.
Five Easy Pieces (MM, ST)
Participants are put into groups of five people. To be successful, every person in the group must assemble a three-piece puzzle. Pieces may be traded, but no talking is allowed. Participants then can reflect on the interdependencies of systems.
Community Maze (MM, TL, ST)
Given an invisible maze on the floor, groups of up to 12 people must work together silently to discover and accurately move through the maze. The debrief conversation can include considering the iceberg (structure generates behavior), fixes that fail, and mental models about team learning emerge.
Teeter Totter (MM, TL, ST)
Participants work together to keep a teeter-totter in balance as they attempt to have everyone in their group get on and then back off the board. Participants can debrief the exercise considering the concept of delays in systems and how this relates to team learning.

Volume Two:

Hands Down (MM, ST)
The facilitator places a number of objects equal in length on the table. Participants must answer the facilitator's question, "What number is showing." The number in question is not actually based on the objects, but rather on different data. Participants can debrief the experience using the Ladder of Inference to see how people tended to select data that did not help them solve the problem.

Web of Life (MM, ST)
Participants experience a physical analogy in which they represent the parts of a system and use yarn to show causal relationships between parts of a system. Participants can debrief the experience by considering topics such as convergent vs. divergent thinking, interdependencies, and obstacles to learning in situations of complex interdependence.

Moon Ball (MM, TL, ST)
Participants in a group of 8-30 people must keep a ball in the air, making sure that every person hits the ball before any person hits it again. The exercise can help people see the concepts of team learning and mental models and how these can change over time.

Paper Tear (MM, ST)
Participants must follow a series of vague instructions for tearing a piece of paper. They must keep their eyes closed, thus being unable to gain any feedback. This exercise helps demonstrate how the same exact words can be interpreted in a number of different ways. The hearer of a message will not necessarily have the same mental model of the message as the speaker.

Belief Release (ST, PM)
Participants experience physical tension and contrast that with the release of that tension. The same is then practiced using a number of beliefs, first holding tight to such a belief and then letting it go. People can process how an individual's internal beliefs can interfere with the ability to see the bigger picture.

Balancing Tubes (ST)
Participants attempt to balance a paper tube for as long as possible. Different attempts are made while being able to focus on only the bottom of the tube vs. any part of the tube. Participants can analyze why it is more difficult to balance the tube when looking at the bottom and consider the difference between focusing on change in the system over the short (bottom of tube) and long (top of tube) term.

Touch Base (MM, TL)
Participants move from one side to the other side of a circle touching "base" but not touching any of the participants. They must work to speed up the time taken for the task over multiple attempts. Participants can debrief the experience considering the need for different perspectives then considering problems/solutions and the connection between improved communication, team learning, and systems thinking.

Squaring the Circle (TL, ST, ST)
Participants holding onto a rope in the shape of a circle must work together, while blind-folded, to reshape the rope into a square. They must figure out how to gain a shared view of the problem while in the dark. This can help people explore the meaning of team learning, see the concept of self-organizing systems, examine what occurs when communication is limited to voice, and more.

1-2-3 GO! (MM, TL)
Participant must follow the directions of a facilitator to determine when they are supposed to clap. Many may follow the physical model over the verbal instructions, jumping to action before listening to the directions. Participants can consider the speed with which people often move from forming assumptions to taking action and see the importance of listening before acting when working in a team.

Dog Biscuits & See Saws (TL, ST)
Small groups work to keep a physical system in balance as more parts are introduced. Participants can debrief considering that systems can be "felt" and "sensed" as well as "thought." Participants gain insight into the way balancing systems operate and develop increased ability to detect the presence of balancing structures and delays in complex systems.

Volume 3:

Frames (MM)
Participants view a system over time through various frames of reference in order to consider different perspectives and consider the impact of choosing different time and space boundaries.
Postcard Stories (ST)
Using postcards to tell stories, participants investigate the difference between linear and circular causality, consider how time boundaries can shift our understanding of causality, and identify delays in a system.
Paper Fold (MM, ST)
Participant fold a piece of paper in half multiple times in order to see exponential growth in a tangible manner, understand the impact of an exponential over time, and understand shifting loop dominance.
Monologue/Dialogue (MM, TL, ST)
The larger group watches small groups attempt to reproduce a drawing that they cannot see. The first group uses a monologue, while the second group uses a dialogue. Results are compared and considered.
Living Loops (MM, TL, ST)
Participants holding hands and standing in a circle, identify connections between people as (+) or (-) links and then kinesthetically experience the behaviors of reinforcing and balancing loops.
Harvest (MM, TL, ST, SV)
Teams fishing from a commons tend to experience the tragedy of the commons. Through the debrief, participants can talk about the difficulties in maintaining a commons and the impacts of individuals who attempt to gain long-term benefits without personally paying the short-term price required to implement sustainable policies.
Triangles (MM, TL, ST)
Individuals in a large group must maintain an interdependent relationship with other individuals over time. Through this experience, several ST concepts including interdependence, balancing processes, delays, leverage and the idea that structure generates behavior can be discussed.
Avalanche (MM, TL, ST)
A group of people must work together to lower a light pole to the ground without allowing the top of their finger to lose contact with the pole. The debrief can focus on many possible aspects of the experience including balance, interdependent parts, costs and benefits of breaking rules, escalation, and emergent behavior.
Space for Living (MM, TL, ST, SV)
Participants must find "space for living" within rope circles placed on the ground. As some of the circles are removed, participants may need to change a mental model in order to find space for everyone. Participants can talk about limits to growth, scarcity, short-term vs. long-term thinking.
Group Juggle (MM, TL, ST)
Similar to Warped Juggle, participants must throw a ball or object in a particular order until it has been passed to every person. In this activity, the goal is not to improve the time, but rather to increase the number of objects being tossed at the same time. Debrief can include concepts such as exponential growth, overshoot and collapse, and shifting dominance.

Key:
MM – Mental Models
PM – Personal Mastery
TL – Team Learning
ST – Systems Thinking
SV – Shared Vision