



Out of Class (Instructor)



In Class (Students)



In Class (Instructor)

Begin Here.

Instructor brings 3 tennis balls and a timer; reviews system diagrams.

Ball Activity, Round 1: Students stand in a circle and each toss the ball to someone so that everyone gets tossed to once. Round 2: Students repeat Round 1, tossing to the same individual, but they are timed (this generally takes 45 s and any round can have multiple tries).

Instructor tells students that they can perform this activity in 10 s.

Round 3: Students repeat this task a few times and usually it takes approximately 25 s.

Round 4: Two more balls are added to the circle and again, each student must pass to whom they passed to in Round 1. Round 4 creates chaos within the circle and demonstrates the complexity of systems with many moving parts.

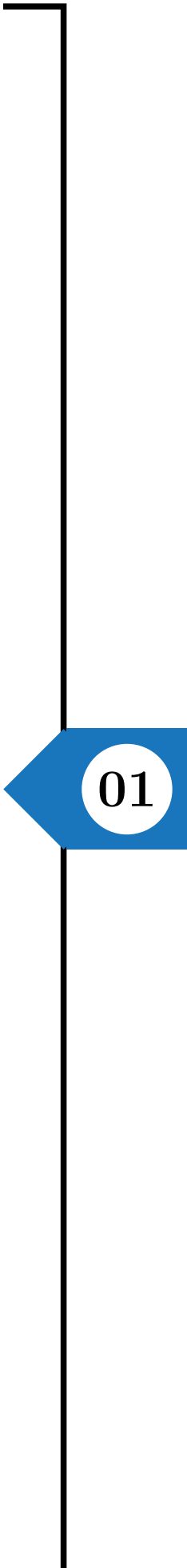
Instructor tells students that there is no specific order in which this activity can be performed (but they must pass to the same individual as in Round 1) and to think outside the box.

Round 5: Students again pass the ball around to each other but, after a few tries, they figure out that they can rearrange themselves in the circle so that the ball can be passed in a straight line and they then achieve the task in 10 s.

On the board, students write all of the limitations of the activity such as lag time, bottlenecks, relationships, etc..

The students (with guidance from the instructor) draw a systems diagram related to the ball activity on the board.

	Whole Class
	Writing
	Demonstrate
	Instruction
Bloom's Taxonomy	
★★★★★★	Remember
★★★★★	Understand
★★★★★	Apply
★★★★★	Analyze
★★★★★	Evaluate
★★★★★	Create



01

02