**THE LEGO GAME**

Students may never have seen or played with Legos!

**Step 1:**

Students are lined up in parallel assembly lines (identical; maximum of three lines).

How many people per line & per station?

Each student is given a bin of LEGO bricks, at the end a pile of rubber bands, and a set of work instructions. In those bins will be a few wrong parts, and/or insufficient parts.

1. Each student or line gets a bin?
2. Are the rubber bands at the end of the line and which end?

* Stores of correct blocks will be elsewhere.
* The tools (potholder gloves) will be stored elsewhere.

A lot of 20 pieces is needed. Each station is told that it can only pass a lot of 20; no less.

When students realize they have insufficient / wrong parts, they need to go get the pieces themselves. Same with the “tools” needed to do the assembly.

This will be a timed exercise; 10 minutes.

**Work Instructions:**

A lot of 20 assemblies is required: No lot can be passed on incomplete.

Station One: Attach a 4 X 2 RED block to a 2 X 2 BLUE block. Blue block on the red pegs, centered.

1. Is 4 x 2 and 2 x 2 referring to a dimension, number of holes or pegs?
2. Blocks can be assembled in multiple ways (pin to pin, hole to hole, pin to hole?
3. What does centered mean?

Station Two: Attach another 2 X 2 BLUE BLOCK on top of the one already there.

1. Which way is the top?
2. What alignment?

Station Three: Using a potholder to hold the existing assembly, add on a 2 X 4 YELLOW block, centered.

1. Added where?
2. Centered on what block, blocks, color, side, direction, face?

Station Four: Put a rubber band around the whole thing to hold it together.

(Note: People will be given a mass of rubber bands but not told that only one kind of rubber band is the right one.)

1. How many wraps?
2. What direction?

Station Five: Inspection.

**Step 2:**

Debrief the students. Hand out post-it pads.

On whiteboard, write “TIM WOOD” – each category broken down (e.g., Transportation, Inventory, etc.)

Le the students write down observations of the existing line for each of the TIM WOOD categories.

Create an Affinity Diagram with students putting each observation in the appropriate space.

Talk through each one.

**Step 3:**

Students then write ideas down to improve the line, again using TIM WOOD as an Affinity Diagram guide.

Go through each TIM WOOD category.

Using these as a guide, let the students redesign the line and flow.

**Step 4:**

Redo the exercise, taking the students’ ideas into account – let them redesign the exercise.

**Step 5:**

Debrief and discuss what happened – and the improvements made.

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