Activity Theory of Constraints Simulation

(Where is the Bottleneck)

Introduction:

Ever feel like you are running uphill? That there might be a better way to accomplish the same task? Everyday there are people who work within businesses looking for ways to improve their efficiency. To decrease costs and increase profits. It might be something as simple as folding or not folding towels. Or something as complex as reorganizing a layout of an entire manufacturing plant. In this exercise you will look for ways to improve your process flow in order to optimize your team's outputs.

Challenge:

To identify methods for improving processes so that you maximize throughput in a system.

Equipment:

- *3 timers*

Materials:

- *5 small boxes with candies per grouping*

Procedure:

In **teams of 3** students will self-assign duties:

A. Get Box & Empty It
B. Count & Fill
C. Return Box to Facilitator

Trail 1 (3 minutes) Student will run a slow-paced sorting, recording time that it took to complete all 5 boxes of candies.

Brainstorming (5 minutes). During this time your team will discuss potential changes to a person's workload. Team members are encouraged to inspect the materials and processes in place at this time. As a team determine which ideas to pursue.

Trial 2 (1 minute). Students will then run the sorting at an accelerated pace recording time that it took to complete all 5 boxes of candies. Students will then calculate the maximum output their group had per minute.

Things to Focus On:

1. Identify
2. Exploit
3. Align
4. Elevate
5. Repeat

Present. Each team will present their findings. What bottlenecks were you able to identify in this process?

Scoring:

Slow Pace Run:

Person A: Time=_____ Throughput=_____boxes/minute

Person B: Time=_____ Throughput=_____boxes/minute

Person C: Time=_____ Throughput=_____boxes/minute

Fast-Paced Run:

Person A: Time=_____ Throughput=_____boxes/minute

Person B: Time=_____ Throughput=_____boxes/minute

Person C: Time=_____ Throughput=_____boxes/minute

What is the maximum output per minute? _____

Conclusion:

1. *What happens when the process runs at a slow pace?*

2. *What happens when the process speeds up?*

3. *What is the maximum output per minute?*

4. List where bottlenecks might occur in your everyday lives.