Tuesday, October 23, 2018

- Warm-up
  - Design a simulation for the following
    - Joe runs a bus with eight seats. On the average 10% of the people who buy tickets in advance do not show up. So Joe sells ten tickets for each trip. Estimate the probability that more than eight people show up with tickets.

- Gallery Walk
- Quiz ? Probably not today

Joe's Bus

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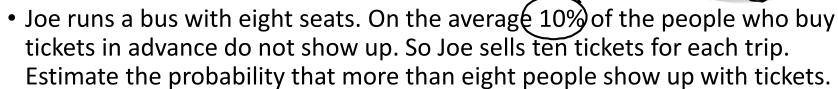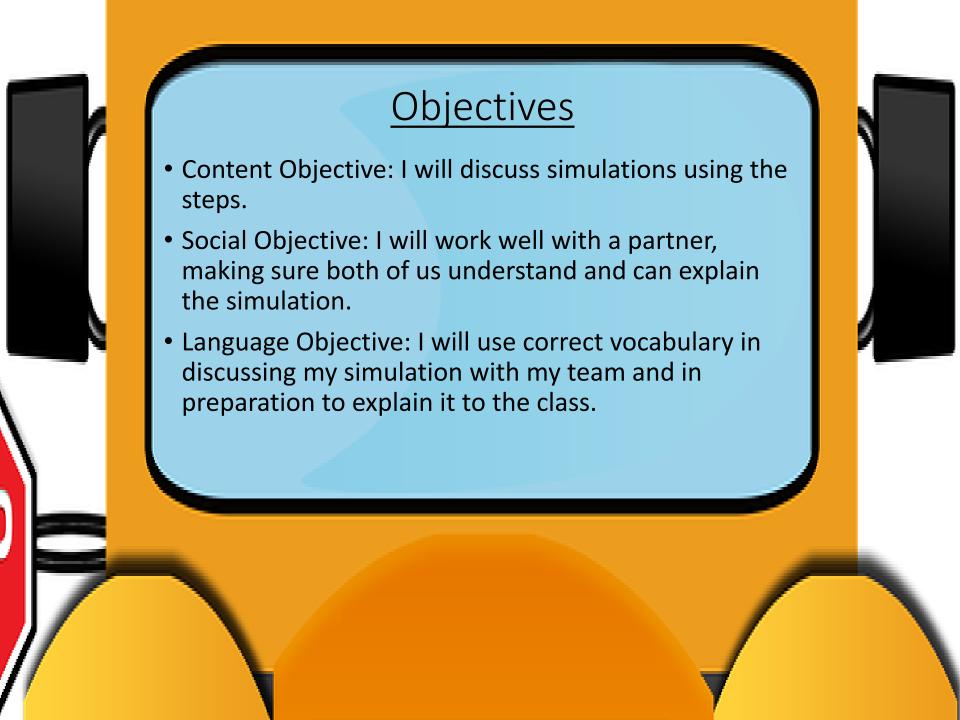
Component - if someone shows up or not   RandInt
    using a random number table — 0 = no show   (0, 9, 10)
                                    1-9 = do show

Trial: generate 10 numbers and count how many showed or
                        no show →   did not
    1 9 2 2 3 9 5 0 3 4 → ☹   9 6 0 9 1 2 5 3 1 ☹
                                    4 2 5 4 4 8 2 8 5 3 ☹
    0 5 7 5 6 2 8 7 1 3 ☹

According to the simulation, he will oversell 100% of the time
    Bernadette's simulation, 70% of the time he oversold.

Objectives

- Content Objective: I will discuss simulations using the steps.

- Social Objective: I will work well with a partner, making sure both of us understand and can explain the simulation.

- Language Objective: I will use correct vocabulary in discussing my simulation with my team and in preparation to explain it to the class.

Gallery Walk

Use your random number generator to generate 4 numbers between $1-18$. Those are the 4 posters you will evaluate.

Hi.
You are
great!

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   E: Randomizes simulation correctly
   P: Randomizes somewhat correctly
   I: Uses and inappropriate model
2. **The Simulation**
   E: Explains procedure well, clearly displays the simulation process, counts the components of the trials correctly
   P: meets only 2 requirements
   I: meets fewer than 2 requirements
3. **Interpretation**
   E: Establishes a standard of proof consistent with the simulation and justifies conclusion based on that standard.
   P: Fails to justify the decision rule OR confuses the model with reality
   I: Fails to address the issue of statistical significance

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