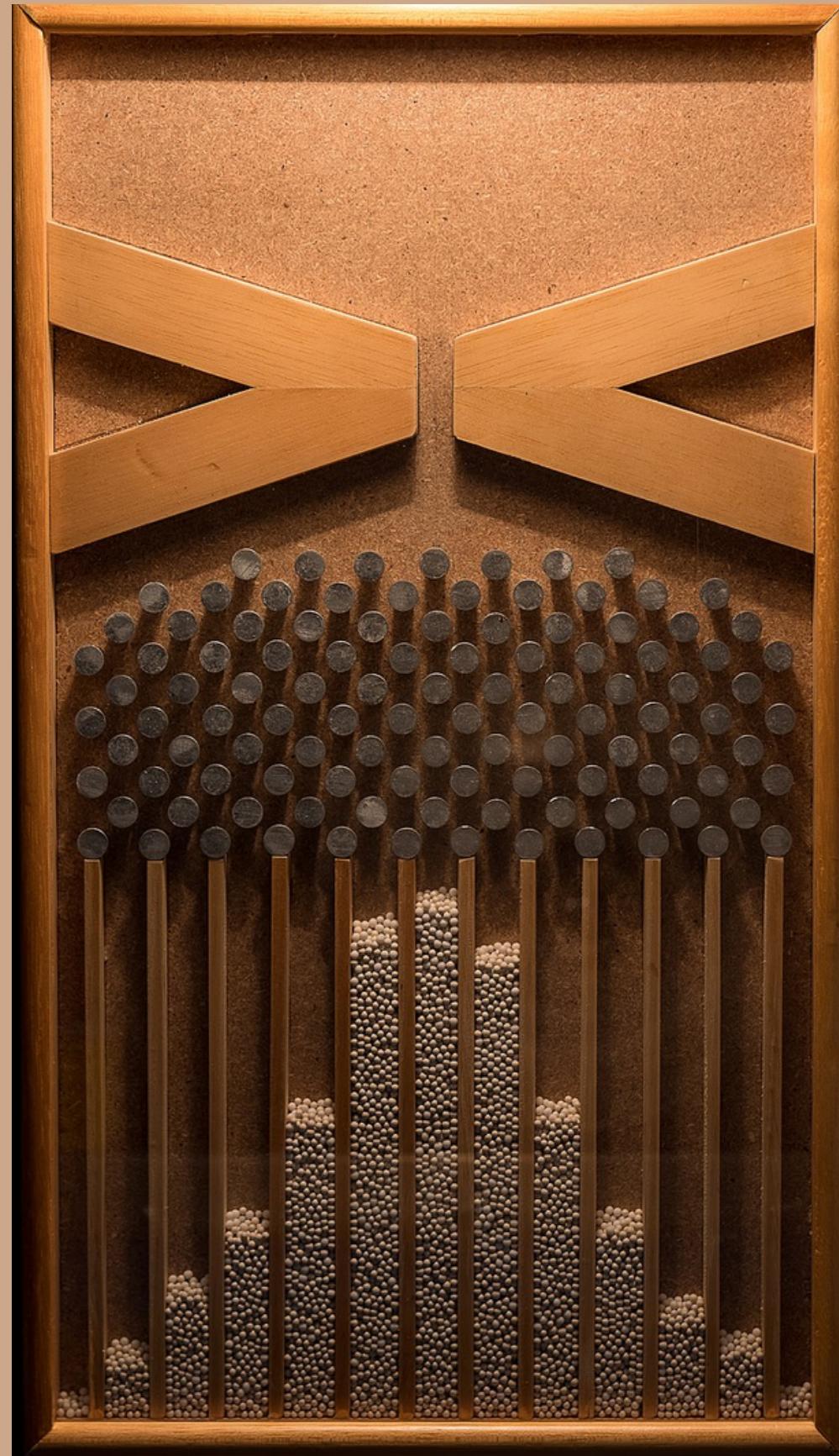


# Galton Board

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# Background

- Invented by Sir Francis Galton in the 19th century.
- Top: Small balls are dropped through a funnel.
- Middle: Evenly spaced pegs arranged in a triangle.
- Bottom: Balls collected in evenly spaced slots
- The balls randomly bounce left or right as they hit the pegs.
- Demonstrates the binomial distribution.

# Problem and Solution



Secondary school students have poor performance and low interest in mathematics.

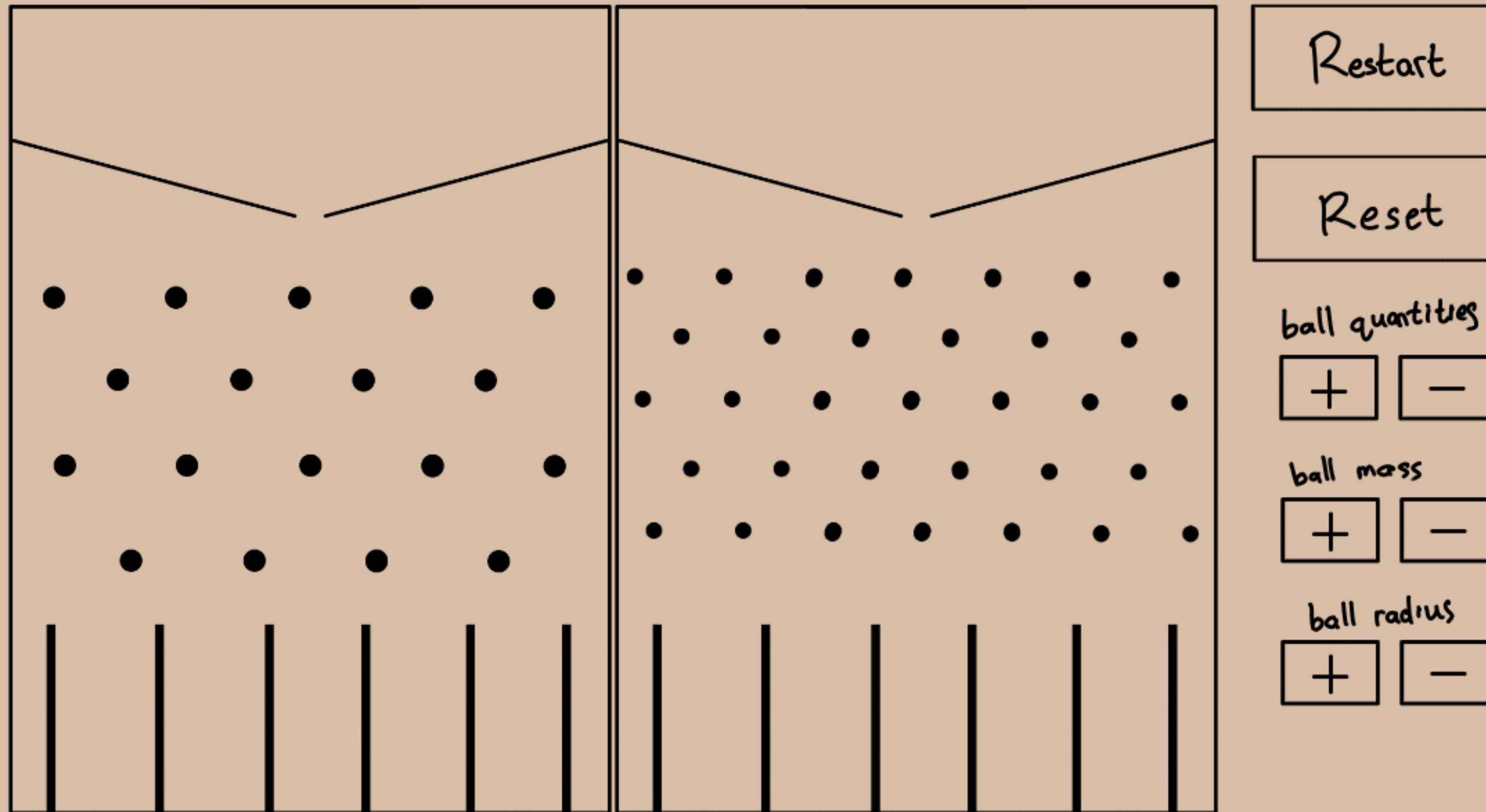
The teaching method contributes to students' poor academic progress.



Research = Games and simulations improve students' math achievements and attitudes.

Using Galton board simulation as interactive teaching to sustain and motivate students' interest in math.

# Draft of UI



# Related Works

Reference	Technique	Advantage	Disadvantage
<a href="https://doi.org/10.1016/j.physa.2010.11.044">https://doi.org/10.1016/j.physa.2010.11.044</a>	Numerical simulations to connect with kappa-distributions	Extension of Galton Board Concept	Limits the scope of the research to kappa-distribution
<a href="https://doi.org/10.1016/j.physa.2008.05.003">https://doi.org/10.1016/j.physa.2008.05.003</a>	Experimental & numerical study through a bi-dimensional Galton board	Provides real-world data which enhances the reliability and practical relevance of the findings.	Simplified particle properties
<a href="https://arxiv.org/pdf/nlin/0503024">https://arxiv.org/pdf/nlin/0503024</a>	Ball motion simulation and the consideration of their collisions	Detailed modeling for accuracy	The limited generalizability may not directly apply to other mixing or particle interaction scenarios.



Thank  
You