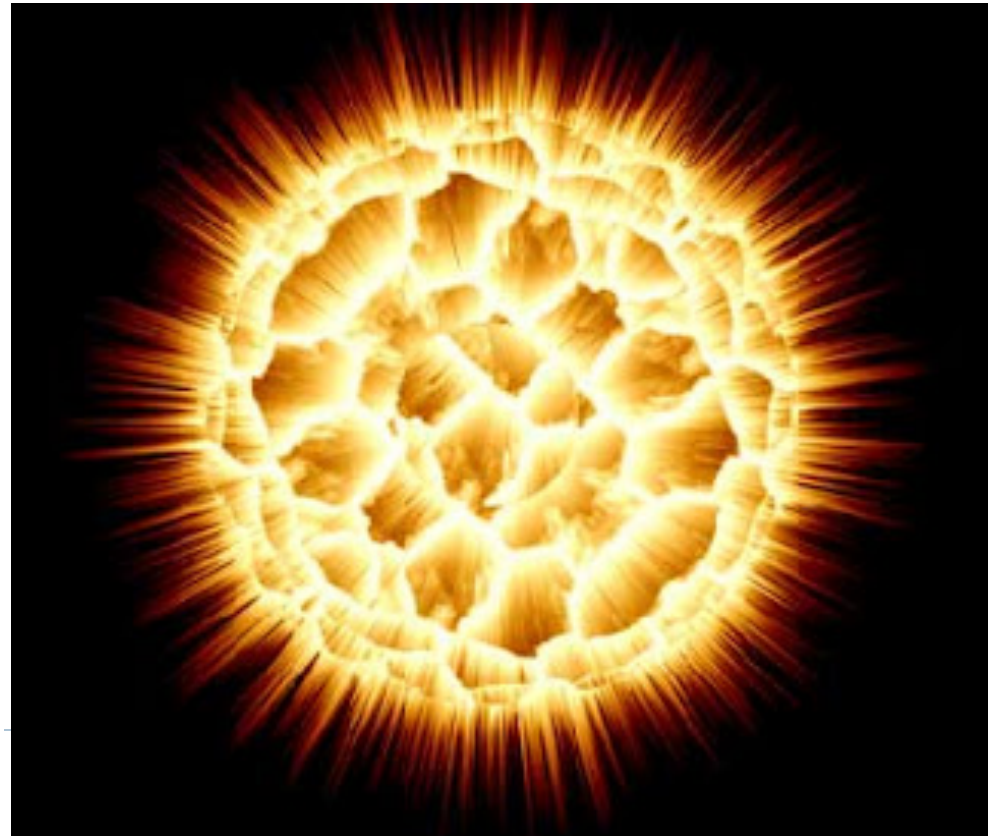


Embedding Students in Economic
Environments: Using Mobile Response System
for Facilitating Classroom Experiments



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**Experiments
promote explosion
in learning!**



Experiments in Economics Pedagogy

- ▶ **Challenge of teaching economics, especially to experiential learners:**
 - ▶ Abstract analytical (mathematical) models
 - ▶ Complex dynamic environments
 - ▶ Issues often lack resonance with student's life experiences
- ▶ A common pedagogical approach towards mitigating this challenge is recourse to thought experiments.
- ▶ However, embedding students in real experiments is pedagogically more fruitful than using thought experiments (Why?).



Why Classroom Experiments?

- ▶ **Direct illustration and contextualisation**
- better motivation.
- ▶ **Engagement and Involvement** - facilitate active learning.
- ▶ **Feedback** – enable reflection and exposure to heterogeneity/diversity of thought processes and reasoning.



Conducting Classroom Experiments

▶ **Traditionally two alternatives:**

1. **Hand Run – manual collection of students choices or responses**

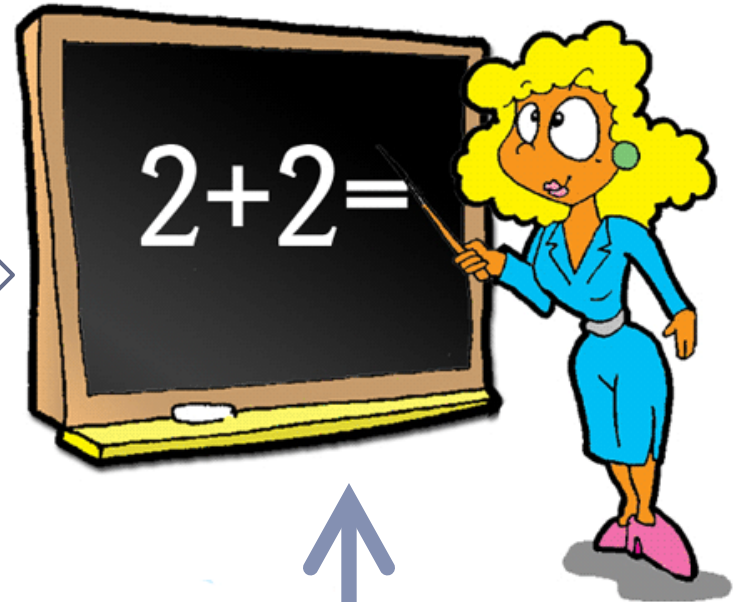
- Pros – simple and convenient in terms of resources
- Cons - prohibitively time consuming and infeasible, especially for large class sizes

2. **Computer Based – web or locally installed program involving computerized choices or responses**

- Pros – speedy and efficient collection and analysis of data
- Cons – resource intensive (computerized lab, software)



Silver Bullet?



ResponseWare

Turning Point



Role of Mobile Response Systems

- ▶ **Mobile Response Systems – ideal compromise!**
 - ▶ akin to computerized experiments – efficient
 - ▶ akin to hand run experiments – convenient

 - ▶ **Simultaneously resolves the two competing constraints in conducting classroom experiments**
 - ▶ alleviates time issues for execution, collection and analysis of data
- without**
- ▶ the recourse to resource intensive labs.



Illustration

- ▶ **Strategic Decision Making**
 - ▶ Your best decision depends on what others do, and what they do may depend on what they think you do
- ▶ **Two fundamental requirements for decision making in such environments:**
 - ▶ Iterative Thinking - best response analysis
 - ▶ Expectations - belief about others' ability for best response analysis, belief about others' belief about your ability for best response analysis.....
- ▶ **Potentially difficult for students without formal exposure to such environments to comprehend.**



(Simple) Experiment to the Rescue!

- ▶ **Choose any number from 0 to 100.**
- ▶ **Winning number is = $2/3$ *mean of all the choices.**
- ▶ **Winner is the one whose chosen number is **NEAREST** to the winning number.**

- ▶ **PRIZE for the Winner**





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Results by Question

Session Name: Beauty Contest 27-01-2016 10-07

Date Created: 1/27/2016 10:02:07 AM

Active Participants: 41 of 41

Average Score: 0.00%

Questions: 1

Find Zoom: 150%

Options

- Question Statistics
- Difficulty/Discrimination Index
- Screenshots
- Overall Standards
- Show Essay Responses
- Show WordClouds

Short Answer / Numeric Response:

Show Top Responses

1. Choose a number from 0 till 100? Winning number is = $2/3 * \text{Mean of all the choices}$. Winner is the one whose chosen number is NEAREST to the winning number! (Numeric)

Responses		
	Percent	Count
100	7.32%	3
22	7.32%	3
23	7.32%	3
30	7.32%	3
50	7.32%	3
21	4.88%	2
28	4.88%	2
32	4.88%	2
35	4.88%	2
40	4.88%	2

Acceptable Value: -

Acceptable Value: -

Question Close



Export



Print

Results by Question

Session Name: Beauty Contest 27-01-2016 10-07

Date Created: 1/27/2016 10:02:07 AM

Active Participants: 41 of 41

Average Score: 0.00%

Questions: 1

Find Zoom: 175%

Options

- Question Statistics
- Difficulty/Discrimination Index
- Screenshots
- Overall Standards
- Show Essay Responses
- Show WordClouds

Short Answer / Numeric Response:

Show Top Responses

21	4.88%	2
28	4.88%	2
32	4.88%	2
35	4.88%	2
40	4.88%	2
Other	39.02%	16
Totals	100%	41

Acceptable Value: -
Acceptable Value Matches: -
Range: 0 - 100
Values in Range: 41

Question Statistics

Mean	38.44
Median	32.00
Variance	576.59
Standard Deviation	24.01

◀ Question ▶ Close

THANK YOU!

ANY QUESTIONS?

