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# Classroom Clickers – Invigorating the Classroom Experience

Martina Arndt

*Bridgewater State College, marndt@bridgew.edu*

Ed Brush

*Bridgewater State College, ebrush@bridgew.edu*

Veronica Cote

*Bridgewater State College, v1cote@bridgew.edu*

Shannon Donovan

*Bridgewater State College, s1donovan@bridgew.edu*

Thanh Nguyen

*Bridgewater State College, tnguyen@bridgew.edu*

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Martina Arndt, Ed Brush, Veronica Cote, Shannon Donovan, and Thanh Nguyen (January 16, 2008). Classroom Clickers – Invigorating the Classroom Experience. In *EdTech Day Conference*. Presentation 3.

Available at: <http://vc.bridgew.edu/edtech/2008/sessions/3>

# Classroom Clickers – Invigorating the Classroom Experience

Dr. Martina Arndt, *Physics*

Dr. Ed Brush, *Chemistry*

Dr. Veronica Cote, *Aviation*

Dr. Shannon Donovan, *Accounting and Finance*

Dr. Thanh Nguyen, *Secondary Ed*

# Basic Components

- Clickers
- TurningPoint (basically PowerPoint)
- Question – some form of Multiple Choice
- Response Counter
- Timely Tabulated results
- Timers

# Useful for...

- New Content
- Review
- Taking the pulse of the group
- Testing
- Group Demographics
- Anonymous responses – and responses from all students!
- Pre/post work

# Why use Clickers?

## **Faculty:**

- Rapid, any-time assessment method;
- Facilitate discussion and cooperative learning;
- Take attendance;
- Assess opinions & perceptions;
- Perform mid-course evaluations.

# Why use Clickers?

## **Students:**

- Help students monitor their own learning;
- Gives class and individuals a better sense of their strengths and deficiencies;
- Reassurance that they are not alone in their opinions or knowledge level;
- Engaging all students by anonymous responses;
- Credit for attending class;
- Help develop critical thinking instead of rote memorization.

# Clickers and Guided Inquiry Learning

- GIL: student active, research approach to learning sweeping STEM education;
- Works for small and large classes with increased retention, student satisfaction, reduced failure rates;
- When clickers are integrated with GIL enhanced benefits observed for students: in C- range, also with poor math skills
- Benefits carry forward to other courses;
- POGIL (Process Oriented Guided Inquiry Learning) is best developed method with growing course resources in STEM disciplines.

# Chemistry Clicker Project

- Monitor student progress in specific introductory chemistry courses;
- Assess progressive development of critical thinking skills related to specific topics that are critical for success in upper level chemistry and biology courses
- Questions developed for specific topics: structure and hybridization, resonance, acids and bases;
- Response devices will be used for both informal polling and quizzes, where students can work together or individually to answer questions.



# *Have you ever used Clickers before today?*

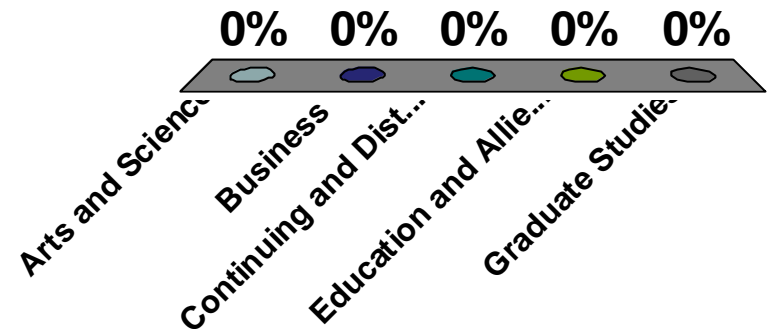
0% 1. Yes

0% 2. No

0% 3. Umm.....what are clickers?

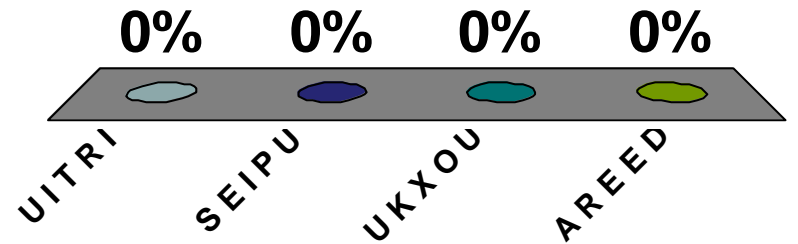
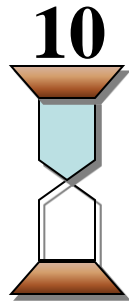
# *Which BSC school are you affiliated with?*

1. Arts and Science
2. Business
3. Continuing and Distance Education
4. Education and Allied Studies
5. Graduate Studies



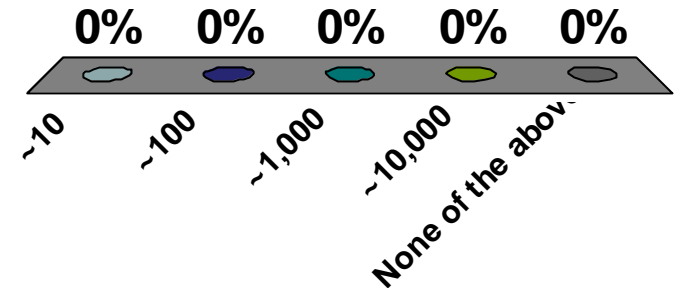
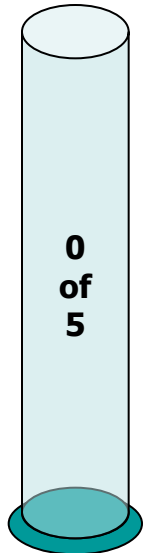
# B\_I\_G\_W\_T\_R

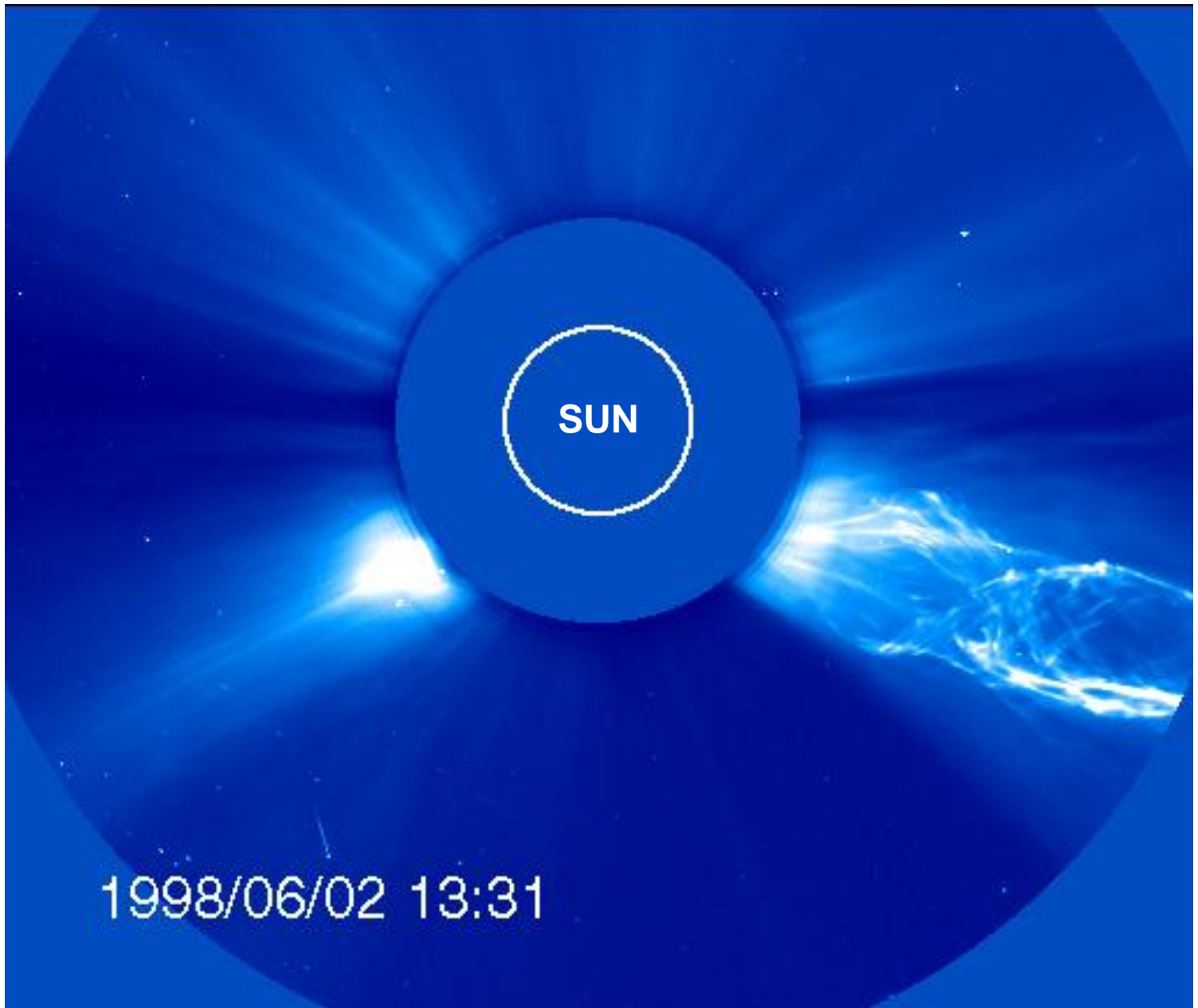
1. U I T R I
2. S E I P U
3. U K X O U
4. A R E E D



# *How many Earths could you line up across the Sun?*

1. ~10
2. ~100
3. ~1,000
4. ~10,000
5. None of the above



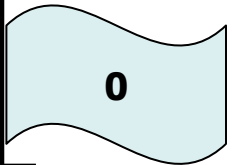


# *Hillary Clinton has the best chance of being the democratic nominee for president*

5

1. Strongly Agree
2. Agree
3. Neutral
4. Disagree
5. Strongly Disagree

0%



Fastest Responders (in seconds)