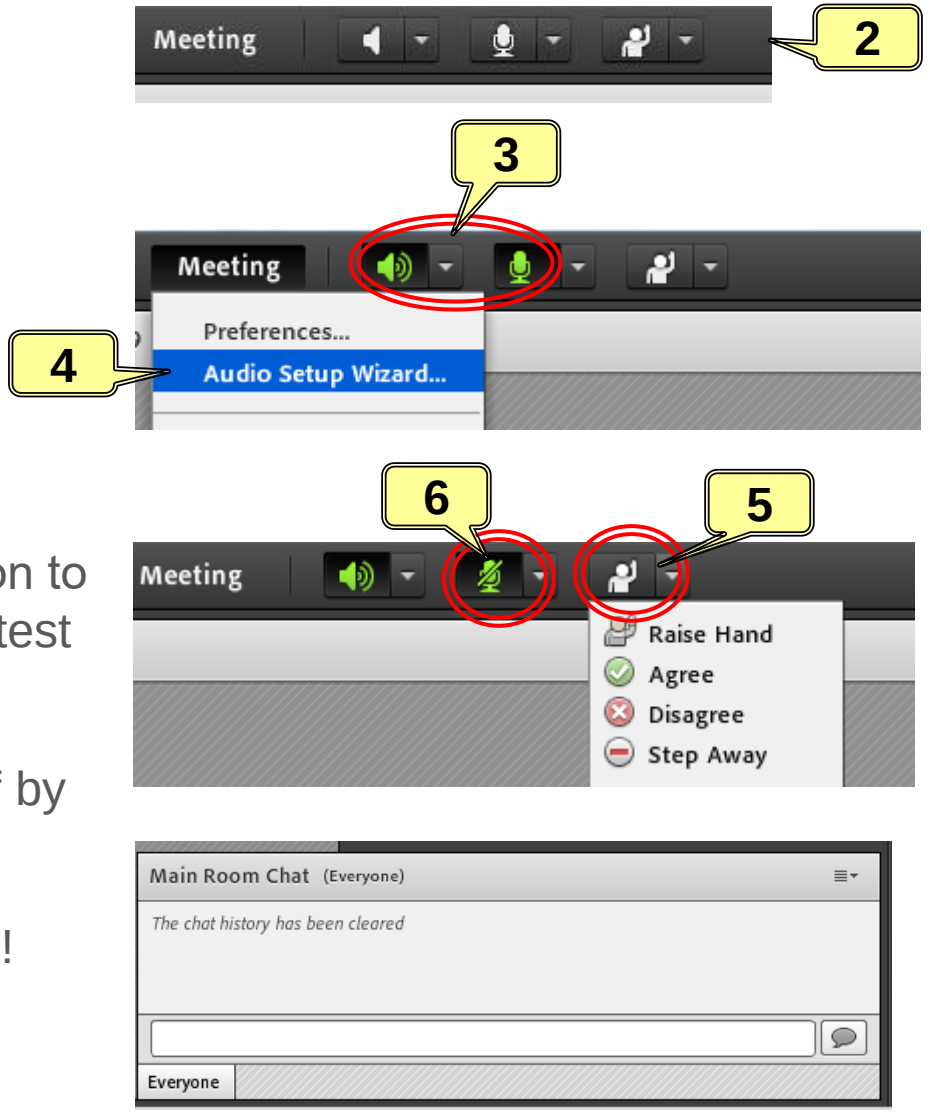
Welcome! As you enter…

1. Plug in your headset (if available).
2. Enable your speakers and mic
3. The top bar icons should be green).
4. Run the audio setup wizard (use “Meeting” menu on top left).
5. “Raise your hand” by clicking the icon to let the hosts know you are ready to test your mic.
6. After testing your mic, mute yourself by clicking the mic icon
7. Feel free to use the chat at any time!



Start Recording

Faculty Virtual Community of Practice

Computer Science & Computer Engineering

Session 5: Pedagogies of Engagement Part 3 Using Technology to Facilitate Active Learning

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Today's Agenda

- Welcome and learning objectives ~ 10 minutes
- Review of research ~ 10 minutes
- Demonstration of tool
- Planning ways to improve classroom interactivity
- Breakout Sessions (20 mins)
- Summary
- Next Week's Homework

CSE VCP Review

- The goal is to introduce faculty to research-based instructional practices in order to make a few changes to their teaching this term and more systemic changes next term
- Session 1: Seven Principles of Learning
- Session 2: Learning Outcomes
- Session 3: Student's Prior Knowledge
- Session 4: Pedagogies of Engagement
- Session 5: PI and Flipped Classroom
- Session 6: Technology to Facilitate Interaction

Poll Question

- Did you install the Classroom Presenter tool as part of the pre-work assignment?
  - I meant to but…
  - Couldn’t get it to work
  - Installed and is working fine

Poll Question

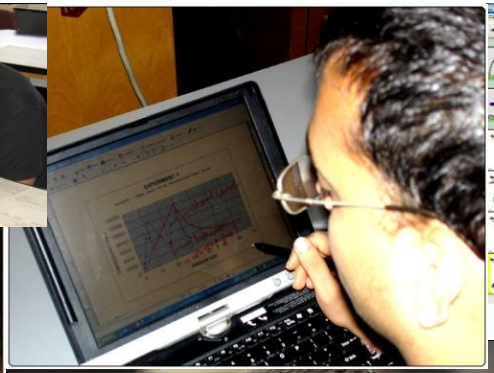
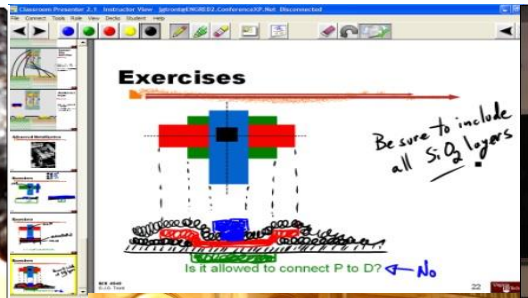
Did you read any of the suggested material?

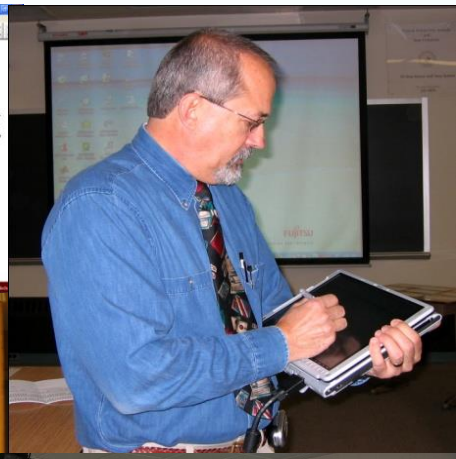
- I meant to but…
- Skimmed the material
- Read it closely

The education of the technical workforce has never been more challenging or more important than it is today

The Big Picture



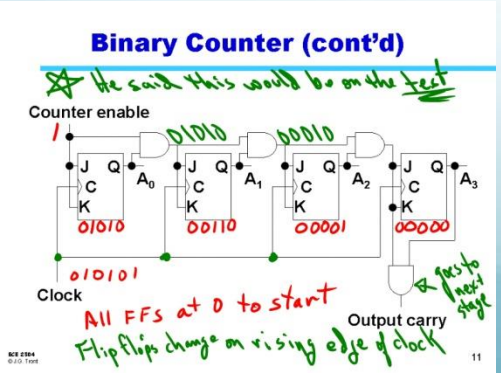






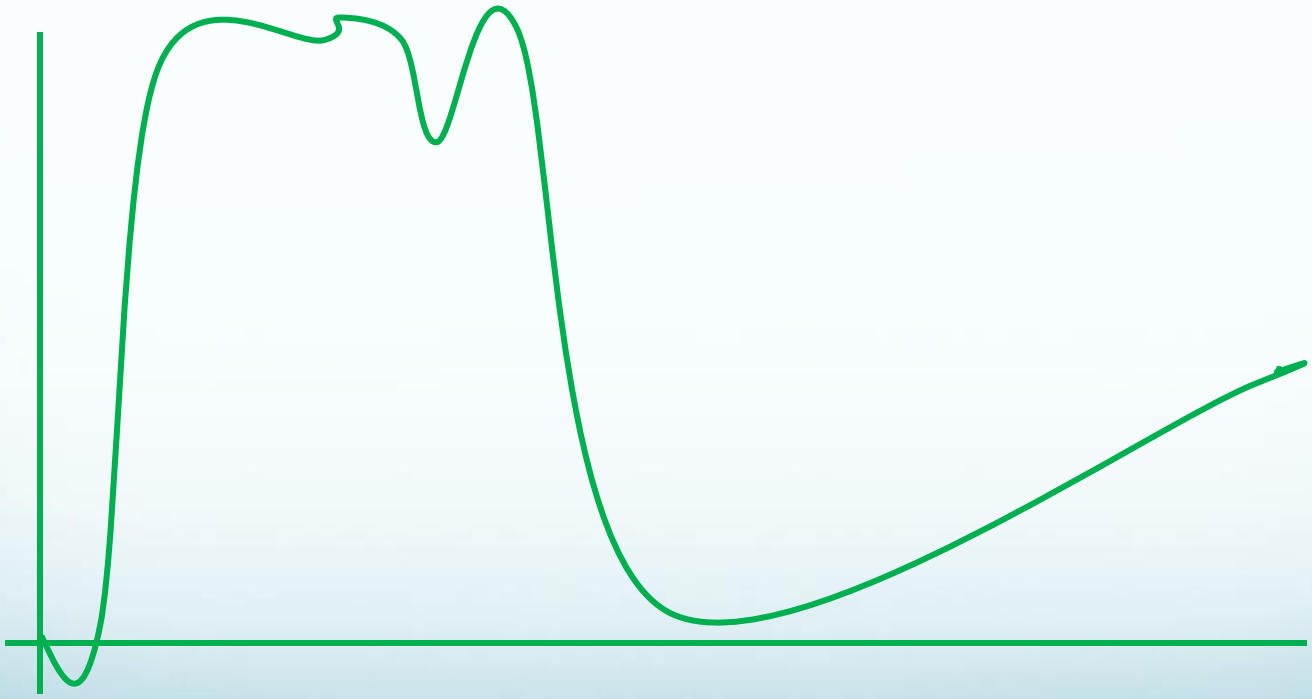




Attention Span

- Varies with student engagement



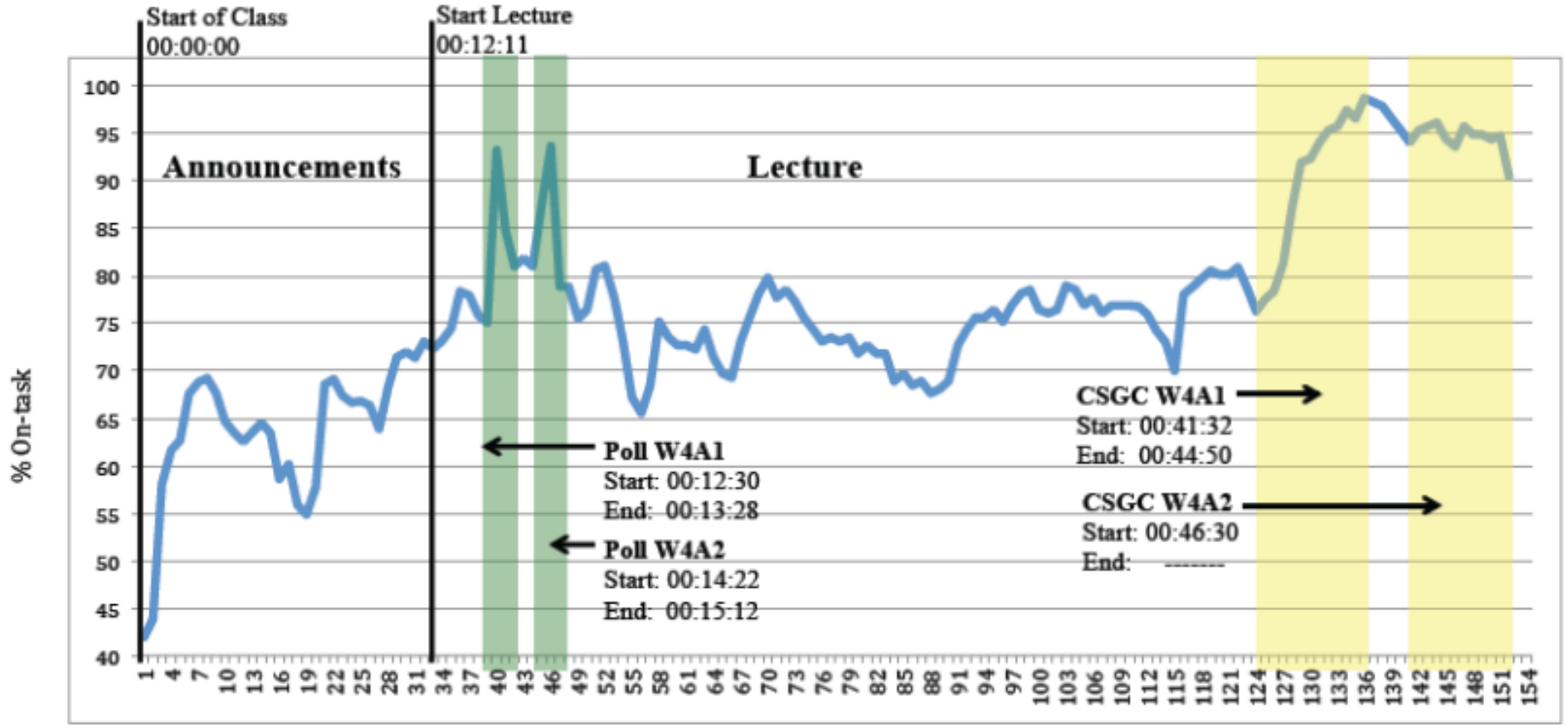
Some Research Results

Characterizing Student Attention in Technology-Infused Classrooms Using Real-time Active Window Data

Mahnas Jean Mohammadi-Aragh

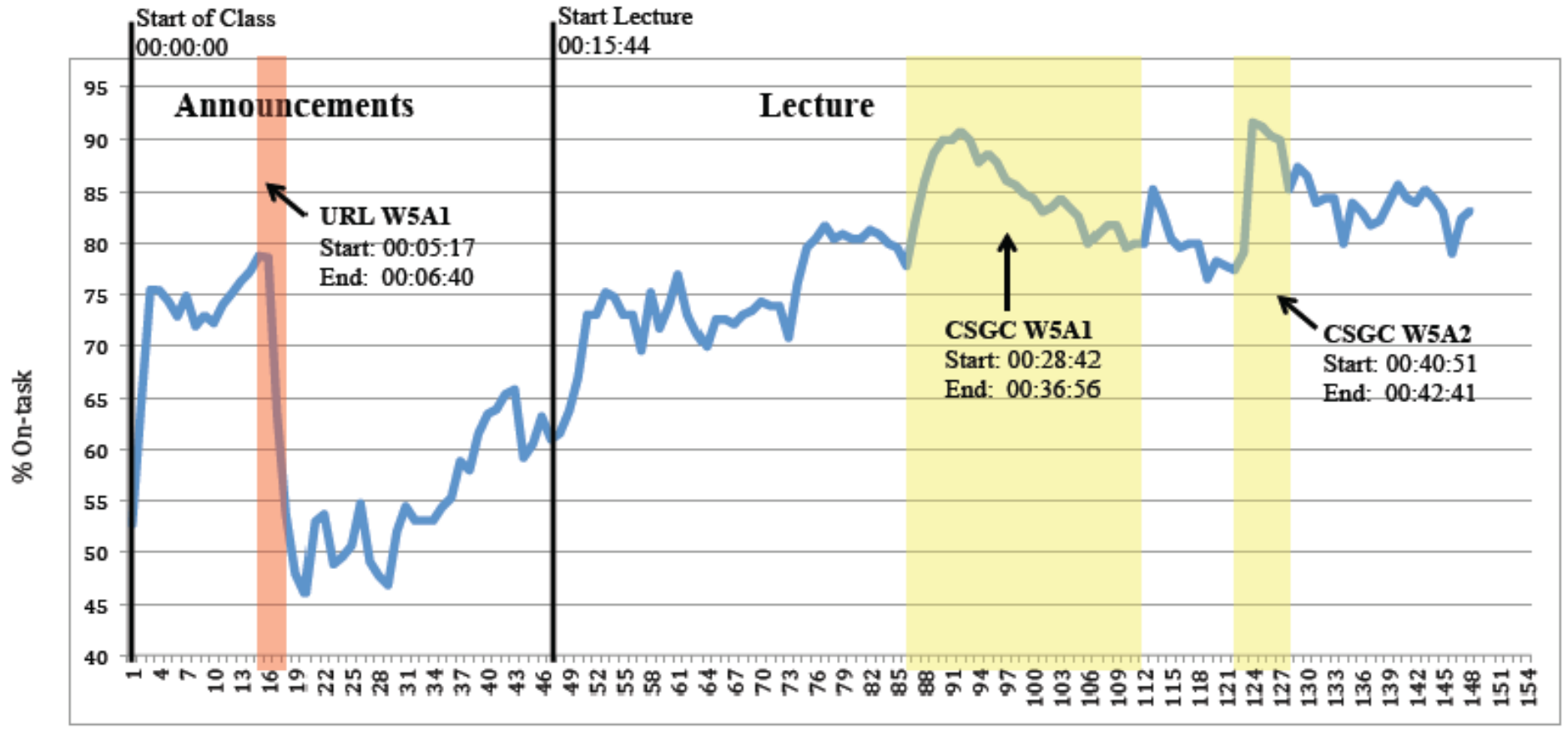
- All Students have a computer in the classroom
- System monitors student behavior
- Assumption: student is engaged if on same screen as professor

Measure of Students on Task



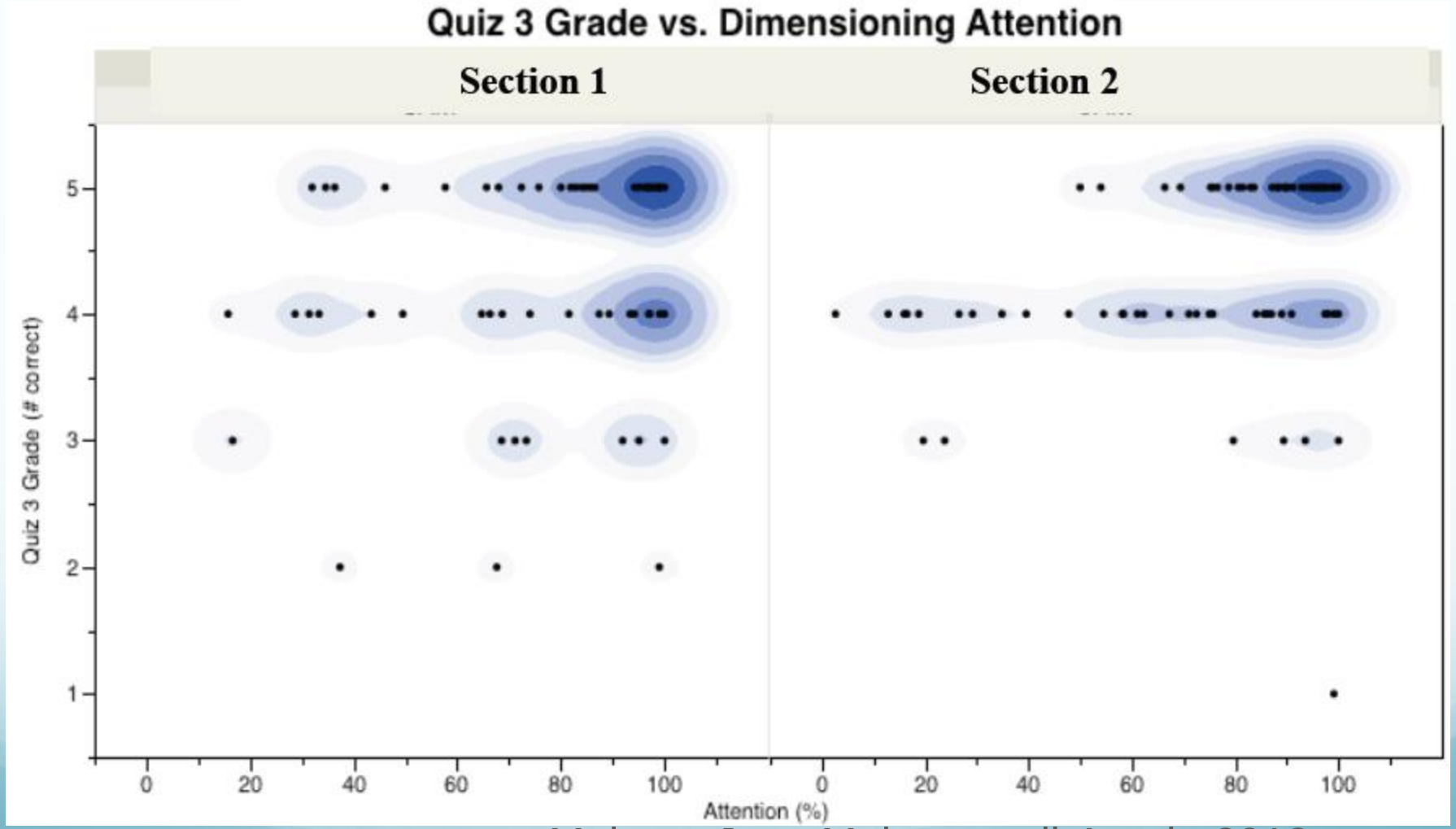
Mahnas Jean Mohammadi-Aragh, 2013

Measure of Students on Task



Mahnas Jean Mohammadi-Aragh, 2013

Measure of Students Success



Mahnas Jean Mohammadi-Aragh, 2013

Improved Pedagogical Practices

- Dynamic presentation
- Active participation
- Note-taking
- Collaboration

- Process-focused

Activity

- Switch over to Classroom Presenter screen
  - Start up Classroom Presenter
  - Observe teacher operation
  - Comment
  - Interact as in the student role

Breakout Session

- Unmute your mics when you arrive
- Post a chat message along with your group number if you have technical problems
- Roles for today
  - Scribe (#3)
  - Reporter (#2)
  - Manager (#1)

Breakout Activity 1

- Plan out two Quick Poll activities for students to respond to in your typical course

Report Outs

Breakout Activity 2

- Plan out a activities for students to respond to in your typical course that uses the capability for a student to send a screen back to the professor and have that information discussed by the rest of the class
- For example:
  - Complete the logic diagram
  - Complete the code
  - Draw the architecture for …

Report Outs

Summary

- Technology tools can facilitate classroom interaction
- Technology does not create interaction
- There must be some forethought put into developing activities

Activity Assignment

- Upload an idea for a classroom interaction to the IdeaScale site
- Assume that you have a tool like Classroom Presenter to facilitate the interaction
- Start the idea title on IdeaScale with the four characters CP3:
  - E.g., CP3: Complete the logic diagram for the four ripple carry adder shown in the diagram…
- Describe the expected interaction that may occur when the entire classroom reviews the results that other students submit.

Next Week: Session 7

- Student Motivation
  - Post homework to the portal **by noon on Monday Dec. 9**, and be prepared to discuss