Adaptive Teaching in the Classroom

Using L.E.D. (Learning Enhancement Device) to give teachers new techniques

Jared Perkins (RBE), Mitch Read (ME), Even Stelly (RBE), Matej Zampach (ECE)
Advisors: Professor Beck, Professor Traver
PLA: Christopher Hanna (CS)

Problem
Kids do not pay attention in class.

Solution
When an L.E.D. is used, teachers can quantify attention and students are encouraged to remain attentive.

Methodology
• Test L.E.D in Reading Class
• Six students use L.E.D while learning the material, six do not
• When students with the L.E.D hear the teacher say a code word they hit the button
• A test is given after the class to assess student retention of the lecture material
• For Test Two, Students switch conditions (crossover design)

Benefits
• Improve attention
• Adaptive teaching

Costs/Cons
• $3 per unit
• Distraction risk
• Breakable
• Contains small parts

Conclusion
Attention increased in one trial, but not the other. For more conclusive results research needs to be done in more diverse classrooms, and with more students. Currently, results are hard to interpret as changes in scores could be affected by the varying difficulty of the tests.

Testimonial
“The device was easily accessible to all students, and the students who were using it were alert and participative.” – Teacher