CLICKEERS PICKERS

Four Universities' Perspectives on Standardizing on a Classroom Response System

Reasons We Standardized:

- Eliminate pressure on faculty from textbook publishers pushing different clicker brands
- Reduce student costs by eliminating the need to purchase multiple clicker types
- Streamline technical support and training
- Enhance peer-to-peer exchange of technical experiences and pedagogical ideas

Results We’ve Had:

- Positive response from faculty to clicker choice
- Significant growth in the use of clickers
- Positive feedback from students on contribution of clickers to learning
- Creation of faculty community of practice

Clicker Attributes We Considered:

- Signal type: radio frequency (RF) or infrared (IR)
- (All went with RF which offers significant advantages such as higher signal throughput and receiver portability)
- Integration with campus learning management system
- Software ease of use and class readiness maintenance for faculty
- Does the software run with or without PowerPoint or both?
- PC and Mac compatibility
- Possible answer types: multiple choice, 1/3, numeric, short answer, multiple choice rank order, decimal point, fractions, positive/negative numbers?
- Is a self-paced or homework mode available?
- Maintenance issues for students: cost, durability, ease of use, confirming indicators, and battery life and maintenance
- Accessibility issues: is a Braille-ready available or a software alternative to the clicker that works on laptops or PDAs?
- Costs to the institution and internal tech support required
- Quality and availability of tech support from the manufacturer

Issues We’ve Seen:

- Faculty learning curve and understanding of time commitment involved
- Early registration glitches and other problems integrating with learning management system
- Bookstore stocking issues as growth occurred
- Student registration/enrollment process not as smooth as desired
- Software with Mac compatibility problems

Our Recommendations for Selection and Deployment:

- Educate senior administrators about clickers and why standardization is important
- Include students in the selection process but make sure they understand how clickers should benefit them.
- Involve the bookstore as a stakeholder and encourage low markup and the creator of a buyback program for the standard clicker.
- Increase leverage by identifying multiple systems that meet campus needs prior to signing a standardization agreement.
- Increase support for faculty during any pilot phase to observe clicker use and monitor issues.
- If not done automatically, ask the selected manufacturer to provide free receivers for faculty use.
- Develop a web-based resources which faculty and students can quickly turn to as a starting point for clicker support.
- Acquire an online system that can be used for demonstration and training purposes.
- Consider starting with a small deployment to focus training and limit the impact of support issues on IT staff.
- Establish records or tracking mechanisms during deployment to facilitate easy updates of software and firmware.
- Provide standard illustrated instructions on registering clickers that can be shown or distributed to students.
- Avoid pushing faculty into using clickers, since the selected technology may improve learning curve. Encourage observation of clicker using peers and consideration of the pedagogical impact of clicker.
- Use successful clicker faculty to aid diffusion and establish faculty-led support groups.

The University of Mississippi

Selected By: Instructional Technology, Teaching Committee
Survey of clicker user on campus
Review of clicker brands on use on campus
Recommendations for instruction, including hardware donations by a faculty champion using MPS
RSVP. Positive feedback from faculty using MPS
Recommendations for instruction, including instruction goals for UMC faculty
Blackboard MPS building block already in place
Recommendations for instructor and agreement to set up a program for MPS
Numbers: Full 2006: 6712 clickers, 6 sections
Spring 2007: 16722 clickers, 19 sections
Fall 2007: 20396 clickers, 30 sections
Current Enrollments: 16,129

San Diego State University

Selected By: Instructional Technology Services (ITS)
Input from faculty committee
On campus demonstrations of four brands selected by faculty, staff, and students
Input from students in four classes to determine final clicker brand
Why: Integration with Blackboard
Student-preferred clicker design
Support for multiple user, even with or without PowerPoint, Mac or PC (teacher-led or student-managed)
Numbers: Full 2006: 10 faculty/12 courses/2997 course enrollment
Spring 2006: 13 faculty/19 courses/6679 course enrollment
Fall 2007: 32 faculty/45 courses/9022 course enrollment
Current Enrollments: 33,493

University of Toronto

Selected By: Instructional Technology Services (ITS)
Ad hoc committee made up of faculty members and the Director of the Academic Technology division
Developed a list of requirements, held demos and conducted tests with the four brands that met all requirements
Why: Can be used with or without PowerPoint
Easy to use, requiring little or no support responsive for students
Can be used in classes with enrollments of over 1,000 students
Numbers: 9,000 seats in 55 courses
Current Enrollments: 70,143