

## What's all the Clicking About? A Study of Classroom Response System Use at the University of Toronto

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*Classroom response systems (clickers) are used in many courses at the University of Toronto (U of T), primarily to introduce interactive pedagogy and to engage students in lecture courses. We examined the use of clickers in various courses at U of T and interviewed over 30 instructors about their use of clickers in classes with a total enrolment of over 5,000 students. Students in these classes were surveyed about their perception of the value of this technology. The objectives of our study were to evaluate the logistics of using clickers, the pedagogical value and associated teaching strategies, and students' perception of its efficacy in their learning. We discuss some of the successes and failures of using clickers as a teaching and learning tool.*

### Introduction

Handheld classroom response systems (clickers) have become increasingly popular in undergraduate teaching as a tool for engaging students and enriching learning environments (Beatty, 2004; Carnevale, 2005; Crouch & Mazur, 2001; Duncan, 2005). Used during lectures, clickers provide prompt feedback on student comprehension and help clarify course topics (Beatty, 2004; Brueckner & MacPherson, 2004; Burnstein & Lederman, 2003; Dufrense et al., 1996; Mazur, 1997).

There are a variety of procedures for using clickers reported in the literature, but generally, the instructor presents students with a conceptual multiple-choice question (Reay et al., 2005) and allots a specific amount of time for students to answer the question before closing the voting. Typically, a discussion follows, and on occasion one or more post-questions are posed to check if students understand the concepts (Beatty, 2004; Crouch & Mazur, 2001; Mazur, 1997; Rao & DiCarlo, 2000).