

# 2007– 2008 Teaching Scholar Program “Clickers” in SMU’s Classrooms: Getting the most out of this new Educational Technology!

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## The Teaching Scholar Program

Saint Mary’s University’s Teaching Scholar Program is continuing into its second year. It is my honour to take over from last year’s inaugural Teaching Scholar, Dr. Shelagh Crooks (Philosophy Department). This new program, announced by Dr. Terry Murphy (Vice-President, Academic & Research) one year ago, provides one SMU faculty member with the opportunity to increase scholarly activities that support and promote excellence in teaching and learning in the university. This opportunity is provided (ironically so!) through a one course teaching reduction for an academic year. Irony aside, the program enables the pursuit of teaching-related activities that would otherwise be left undone as a result of pressures related to a faculty member’s regular teaching and discipline-specific research responsibilities. It is my hope that this article encourages more SMU faculty to consider applying to the Teaching Scholar Program so that they can address those teaching/learning issues which pique their passion.

## Focus of study

The issue at the heart of my efforts for this year is the use of wireless responders (a.k.a. “clickers”) in university classrooms. Thanks to the funding of a 2005 proposal to SMU’s Strategic Initiative Fund (proposal spear-headed by Dr. Karen Lightstone, Accounting Dept., and myself), clickers are now available as an institutionally-supported “standard” educational technology at SMU. Since the installation of special receivers on the computers in over 50 classrooms, and development of a system of clicker-distribution through the Bookstore, the project has enjoyed some initial success. From September 2005 to December 2006, 18 different instructors used clickers in 27 courses (the Bookstore reported selling 1,910 clickers to students over this same period). However, after an initial flurry of interest in clickers by a small group of faculty, the interest in adopting this technology appears to have leveled off. This situation led me to question whether clickers really were to be a “standard” part of the modern-day university course at Saint Mary’s (akin to PC’s/data-projectors and PowerPoint Projectors, or to WebCT), or if they were a passing fad, only to be used by a few techno-savvy instructors.

## Primary goals as Teaching Scholar *Clicker education/awareness campaign to SMU faculty*

The purpose of this campaign is to ensure that more instructors become familiar with this tool and aware of how it could be utilized in their courses to enhance the learning environment. The awareness campaign will consist of a two-part strategy:

- Visiting each academic department over the coming months to give a 10-15 minute presentation about clickers at SMU.
- Organizing a one-day Regional Symposium on ‘Best Practices for using Clickers in the Classroom’. This Symposium will be held on April 29, 2008, and is being offered as a pre-conference event to the annual Dalhousie Conference on Teaching and Learning (April 30 – May 1, 2008). Saint Mary’s instructors, and higher education instructors from the Atlantic region, will have the opportunity to spend a day discussing this topic. Dr. Douglas Duncan, University of Colorado, and author of the book “Clickers in the Classroom”, has been confirmed as one of the keynote speakers.

### 2008/2009 Teaching Scholar Program

The call for proposals for the 2008/2009 Teaching Scholar Program will be posted on the CAID website: <http://www.smu.ca/administration/caid/scholar.html> early in the winter semester.

*We welcome expressions of interest.*

### *Development of a Saint Mary’s-specific “best-practice guidelines brochure”*

The Symposium will also contribute to the development of a best-practice guidelines brochure. With an impressive rise in usage of clickers in universities around the continent over the past few years, there has been an associated rise in the discussion of clickers in educational literature and at teaching/learning conferences. At issue for Saint Mary’s, is that we ensure that the new knowledge about clickers (both from the literature, other institutions, and from our own experiences) is succinctly summarized

and disseminated to SMU instructors. The “pros and cons” of clicker use should be communicated in order to allow instructors to make informed choices with respect to this technology.

### *Measurement of the “effectiveness” of using clickers in lectures*

I will continue working on this research (in collaboration with Dr. R.J. Konopasky, Psychology Department). Dr. Konopasky and I have conducted two separate studies over the last 3 years aimed at comparing groups of students experiencing a single physics lecture, with and without clickers (but with identical content). The groups were tested on the content of the lecture, and given the opportunity of expressing a subjective evaluation of the lecture. The results have proved to be intriguing, and have been presented at conferences; finding time to prepare these results for publication has been difficult. The Teaching Scholar program will provide the time for preparing the publication(s).

### *Restructuring of the introductory “University Physics” course sequence*

I am in the process of restructuring this lecture-based introductory physics course to incorporate all recommended practices relating to the use of clickers and other active-engagement techniques. During this academic year, I have taken over this course sequence, and have adopted a new textbook which was developed based on recent physics education research. This course is now being delivered with a whole host of tools designed to increase the active participation of students. These tools include clickers (of course!), web-based “self-tutoring style” individualized homework sets, frequent use of in-class physical demonstrations, WebCT resources (including online Reading Quizzes), and the recording of lectures with the Atlantic Center’s “viascribe” software. Subsequent WebCT posting of multi-media versions of lectures has also been done. This experiment in course structure, with clicker use embedded into an evidence-based delivery framework, would not have been possible without the time afforded by the Teaching Scholar Program.