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### Welcome to Connections - Your Teaching and Learning Resource

**Sue Vajoczki** - Acting Director, Centre for Leadership in Learning

We are delighted to be launching the inaugural Centre for Leadership in Learning bi-annual electronic newsletter, with a limited number of print copies available. It will normally be published in September and January and will complement our monthly CLL Update Bulletin.

There are a number of new faces in CLL including three new educational developers: Dr. Nancy Fenton, Dr. Beth Marquis, and Dr. Catherine Swanson. Nancy's PhD from Brock University focused on Educational Studies and her area of expertise is the scholarship of teaching and learning (SoTL). She is available to assist any instructional staff with their SoTL projects. Beth joins us having completed her PhD at the University of Toronto in Drama. Beth provides pedagogical assistance to instructors in Engineering, Health Sciences and Humanities. Catherine completed her PhD in Sociology here at McMaster and provides pedagogical assistance to instructors in Business, Science and Social Sciences.

The start of the fall term and the winter term was marred by the poor performance of the campus learning management system, known as ELM, and provided to us by Blackboard. More information about ELM and how we will work with the campus community to ensure that McMaster has a stable, robust learning management system will be provided at an update session on March 29 at 3:30 p.m. in Council Chambers.

We are pleased to report on a number of growth areas within CLL. MacLive, our real-time communication tool that provides for video, audio and chat collaboration, has experienced a 200% growth since 2008. We have collaborated with Classroom Audio Visual Services to provide base stations for personal response systems (i.e., clicker systems) in a number of our large classrooms on campus (for more details about clickers see page 7). The installation of permanent base stations means that instructors no longer have to carry a base station to each lecture in these rooms. The use of our Mac authenticated wikis continues to grow. In November we held the first ever CLL 'office hours' within each of the Faculties on campus. Although these sessions were not attended by a large number of people we were pleased to meet a number of new faces during these sessions.

We are holding a campus open house on May 5, 2010 from 2:30 - 4:30 p.m. (location TBA). We encourage all instructors to mark the time/date on their calendars and join us.

It is a time of change in CLL and we are striving to maintain the things we did well in the past and meet the broad range of needs amongst our teaching community. We value your input and would appreciate any comments that you want to provide. I can be contacted directly at vajoczki@mcmaster.ca or by phone at 22618.

### CLL Profiles



#### Dr. Nancy Fenton

*Educational Consultant - Research*

In December 2009, the Centre for Leadership in Learning welcomed Dr. Nancy Fenton to the role of Educational Consultant - Research.

In this brand new position, developed in response to the burgeoning local and international interest in the Scholarship of Teaching and Learning (SoTL), Nancy will support and partner with McMaster instructors interested in conducting their own teaching and learning research.

Nancy began her career as a registered dietitian and worked in a wide variety of health care settings, including tertiary acute care, chronic care, rehabilitation and long term care. She subsequently returned to the academic world and completed a Masters of Education at the Ontario Institute for Studies in Education, University of Toronto and a PhD in Educational Studies at Brock University. Nancy has developed curriculum and taught courses in both the Faculty of Education at Brock and the Clinical Behavioural Science Program at McMaster. She has also published and presented extensively on research methodologies, education, and food allergies, and has developed expertise in research methods and data analysis.

At CLL, Nancy will draw from these diverse areas of experience and expertise in order to support members of the McMaster teaching community interested in studying their practices in a scholarly fashion. "Part of the excitement of this role," she says, "will be to get to know individuals that are already committed to doing research (continued on next page)"

in their classroom settings and to help them build on it. Such a process will also assist us in shaping the kinds of services and supports that instructors need. I am available to assist faculty to design and implement studies in their classrooms and can support them with grant writing and research methodologies.”

From Nancy’s perspective, McMaster is an especially apt place to conduct this kind of work. “Learning and research are at the centre of [the] University’s mission and vision,” she points out, “along with the international reputation for innovation and creativity. [Together, these elements create] a perfect platform to foster and develop research in the scholarship of teaching and learning.”

If you’re interested in further information about conducting SoTL research, or would like to initiate collaboration, Nancy can be reached at [fentonn@mcmaster.ca](mailto:fentonn@mcmaster.ca).

## Partnerships

### CLL’s Embedded Teaching and Learning Librarian

**Karen Nicholson** - Teaching & Learning Librarian, McMaster University Library

I recently completed a four month secondment to the Centre for Leadership in Learning (CLL). In my regular role as Teaching and Learning Librarian at McMaster, I work collaboratively with liaison librarians and faculty to advance the integration of information literacy at the institutional, program and course levels, and provide teaching support and advice to librarians. Since I work closely with the CLL to ensure that library programs are based on sound pedagogy, becoming a member of the department seemed a logical next step in building a strong partnership between the two units.

During my term at the CLL, I was responsible for two major projects. The first of these was to create the framework for a new third year undergraduate course, “Digital Media for the Social Sciences”, to be offered in Fall 2010. This course seeks to provide students with an opportunity to develop critical thinking skills with regard to digital media; to explore



## Strategic Planning In CLL

**Sue Vajoczki** - Acting Director, Centre for Leadership in Learning

CLL staff are working on the creation of a strategic plan for our unit informed by the CLL external review conducted in December 2008 and the reports from the Task Force on Teaching and Learning. The entire plan will be released later this spring but the structural re-organization details are ready for sharing now. CLL, which previously consisted of two units, one called the CLL and one called the Learning Technologies Resource Centre, have merged into one unit called the CLL. Our structural organization is best illustrated as a Venn diagram with three areas of focus: pedagogy, scholarship and technology.

Within the CLL our mission is the promotion of teaching and learning in all its forms and contexts and described more broadly in our mandate “to encourage, support and collaborate with the teaching community in the scholarly exploration, implementation, evaluation and dissemination of teaching and learning practices.

CLL activities include both general and discipline-specific approaches to the promotion of successful learning in all its forms and contexts.” We strive to accomplish our mission and our broader mandate

without losing sight of our values of: approachability; collegiality & collaboration; adaptability & innovation; and, ethical, evidence-based practice. We look forward to sharing our entire strategic plan with the campus community later this spring.



contemporary controversies and issues related to digital media within a social sciences’ framework; and to improve students’ ability to use information and communication technologies to communicate effectively. Digital media literacy includes elements of cultural literacy, information literacy, and numeracy and builds communication and information technology skills.

The second major project I coordinated was to establish communities of practice at McMaster. Communities of practice, sometimes called ‘learning networks’, are informal groups of people with a common interest who meet to share ideas and knowledge. According to Wenger, McDermott and Snyder (2002), communities of practice thrive when the strategic goals and needs of the parent organization intersect with the passion and interests of the community’s members. The initiative to create communities of practice at McMaster is well aligned with the University’s strategic directions, as witnessed by two key University documents, *Refining Directions - Inspiring Innovation and Discovery* (2003) and *Initial Observations and Recommendations* of the Task Force on Teaching and Learning (TOTAL) (2008). The four McMaster communities of practice are: First Year Instructors, Pedagogy, Teaching Professors and Teaching with Technology. More information about the

communities is available from the CLL web site at [cll.mcmaster.ca/programs/faculty\\_and\\_instructors/communities\\_practice.html](http://cll.mcmaster.ca/programs/faculty_and_instructors/communities_practice.html).

Outside of these two areas, I had the opportunity to participate in a number of CLL initiatives: I was a member of the selection committee to hire two new educational consultants in October, and in November, together with 8 other CLL staff, I completed the Instructional Skills Workshop (ISW), a three-day intensive teaching workshop. I was also involved in organizing McMaster’s first Scholarship of Teaching and Learning Symposium (SoTL), a one day event to highlight research into teaching and learning on our campus. And finally, I drafted a collection policy to define the scope and format of materials acquired by the Centre for its Library, and helped to implement procedures to reclassify the Library’s collection according to the Library of Congress classification system.

Overall, the secondment provided a fantastic opportunity for me to gain knowledge and share ideas with one of the Library’s campus partners, and the experience helped to strengthen our mutual understanding of each others’ role in supporting teaching and learning at McMaster.

Wegner, E., McDermott, R., & Snyder, W.M. (2002). *Cultivating communities of practice: A guide to managing knowledge*. Boston: Harvard Business School Press.



# Interdisciplinary Encounters

## Closing the Great Divide

**Judy Major-Girardin** - Associate Professor, School of the Arts

There is a lot of talk these days about collaboration between departments and faculties across campus but many people question what is at stake when discipline specific time is devoted to cross-disciplinary explorations in the teaching environment. What are the reciprocal benefits of new learning partnerships and can these be structured in such a way that they don't bleed valuable resources away from discipline specific goals? These were some of the concerns of Art and Engineering faculty members when we sat down to discuss upper level collaborative projects for students.

Our talks were focused from the beginning on improving student experience and responding to student needs. In art, we regularly saw ambitious built projects that we felt would benefit from more in-depth structural and material knowledge and from access to new technologies. Our colleagues from Engineering seemed to mirror our thoughts when they told us that their students were involved with projects that could benefit from more in-depth knowledge of basic design and from opportunities to engage with physical realization of the concept.

In short, it seemed that reciprocal benefits were plausible and that it was time to test whether or not collaborations between Art and Engineering could stimulate students to think beyond their disciplinary assumptions. Students on both sides were eager to be involved and their contributions to collaborative projects were counted towards course requirements in their respective programs.

In 2008 the McMaster Museum of Art showcased one of the first of the collaborations with a large scale kinetic tree by Art student Alison Garrett and Engineering students James Prine and Geoff Rivers. The structure was powered by human energy and a bicycle mechanism that pulled metal balls up

the main trunk and rained them down off the welded branches. In 2009 Art and Engineering students worked together to design the sculptural clock installation that is now in the lobby of the new Engineering Building. In 2010 we installed a new shared digital lab and collaborative work space to support future initiatives. We have offered exchange lectures that bring Engineering faculty into the studio and Art faculty into engineering classes, and we have instituted curricular changes that will enable students to enrol in courses across faculties. Currently, students in a new course (3J03) are working on an installation that includes a large industrial artefact that was donated to the Engineering Faculty. This work will be installed on campus in celebration of Hamilton's industrial history.

Each of these initiatives has helped to develop a partnership that promotes cross-disciplinary understanding, that complements and extends the learning provided by the Art and Engineering programs individually, and that paves the way for new areas of research and new opportunities. We hope to continue and to build on these endeavours moving forward.



## CLL Multimedia Project Services

CLL offers a wide range of high quality instructional media services to the McMaster community. We assist instructors in the development of multimedia teaching applications and course materials for use in the physical and virtual classroom.

We provide the opportunity to engage your students through digital video, audio, graphics and animation. We will work directly with instructors to determine their instructional technology needs and to provide the appropriate assistance and resource coordination.

### Visit

[cll.mcmaster.ca/multimedia\\_projects/](http://cll.mcmaster.ca/multimedia_projects/) for more information, and/or to submit a project request online.

## Teaching Tips

*How do I maintain the attention of a large group of students (450+) while at the same time stimulating critical thinking?*

One way I break up the lecture is to offer, by way of example, a problem that I have had to solve in my own research. I ask the students to put their pens down (this is vital!) and show them on a PowerPoint slide the data that I had to work with, and the conundrum, noting that at this point there is no right or wrong answer - we just want to explore every conceivable avenue and not overlook anything. I'll often ask students to give me the silliest possibilities first (humour helps a lot here). This seems to encourage a game atmosphere, allay some of the fears of public humiliation, and get the students involved in the process. When we have arrayed the possibilities, we then work through a process of elimination to arrive at a solution. Sometimes I offer a prize, such as a coffee or doughnut, to the students who proposed the correct solution and the most unusual incorrect solution. I then note that it took the class about 30 minutes, working together, to solve a problem that it took me, toiling away in my study on my own, much longer to figure out.

What do the students get from this exercise? They discover the power of collaboration and the need in problem-solving to explore all possibilities no matter how inane (sometimes the seemingly crazy answer turns out to be the correct solution). I have found, too, that even though almost no one takes notes during the process, the students remember the example extremely well and it often shows up as illustrative material on their exams.

What does the instructor get from this type of exercise? It's fun, a good way to bring your own research into the classroom, and a great opportunity to have the students actually work with you in arriving at the solution. In big classes, it is so hard to feel a connection with the students, but this type of exercise can create an exciting dialogue.

**Ann Herring, Professor**  
Department of Anthropology

## Signature Pedagogies

### Writing our Collective Signatures in Online Commons Spaces

**Beth Marquis** - Educational Consultant, CLL

The concept of signature pedagogies, originally advanced by Lee S. Shulman in relation to training for the Professions, has garnered increasingly widespread interest in recent years (Calder, 2006; Chick, Haynie & Gurung, 2009). In Shulman's terms, a pedagogical method may be called signature to the extent that it helps students form "habits of the mind, habits of the heart, and habits of the hand" characteristic of a given field (2005, p.59). In this respect, the concept acknowledges that sound pedagogy is to some extent discipline-specific. Training students to think, feel, and behave like physicists, like sales analysts, like historians, or like pathologists, for instance, ought to be rather different pursuits.

With this in mind, the Centre for Leadership in Learning has begun a new, multi-year initiative to create disciplinary commons spaces wherein signature pedagogies might be discussed, developed, circulated and refined. We are currently in the early stages of establishing online portals in which educators from a wide range of disciplinary and interdisciplinary areas can: engage in discussion about the teaching of their subject(s); share and critique course portfolios, syllabi, or learning objects; and develop and disseminate classroom research pertaining to their discipline(s). By such means, we hope to participate in the continuing development of pedagogies that are not simply common, but truly signature.



Ron Scheffler  
Photographer, Faculty of Health Sciences

Moreover, because all of these disciplinary exchanges will be linked together in a single online space, interested instructors will be able to engage easily in 'cross-border shopping' - exploring the ideas, arguments and materials circulated by their colleagues in different disciplinary fields. As Nancy L. Chick, Aeron Haynie and Regan A.R. Gurung argue, "there are major pragmatic benefits to be gained from crossing disciplinary lines" in this manner (2009, pp. 12-13). For example, examining the signature pedagogies of other fields might help faculty members to "orient themselves within the different disciplines just down the hall or a few buildings over and facilitate the cross-pollinating conversations essential to the liberal arts and sciences" (ibid, p.12). Somewhat paradoxically, then, linked disciplinary commons spaces may also help to foster interdisciplinary awareness, understanding and conversation.



As we move forward with this project, CLL would value your input and advice. If you're interested in contributing to or in helping to develop these disciplinary commons spaces, please contact Beth Marquis at [marquie@mcmaster.ca](mailto:marquie@mcmaster.ca).

Calder, L. (2006). Uncoverage: Toward a signature pedagogy for the history survey. *Journal of American History* 92, 1358-1370.

Chick, N.L., Haynie, A. & Gurung, R.A.R. (2009). From generic to signature pedagogies. In R.A.R. Gurung, N.L. Chick & A. Haynie (Eds.), *Exploring Signature Pedagogies* (pp.1-16). Stirling, VA: Stylus.

Shulman, L.S. (Summer 2005). Signature pedagogies in the professions. *Daedalus* 134, 52-59.

## Communities of Practice

The Centre for Leadership in Learning has partnered with faculty members and instructional designers to establish four Communities of Practice at McMaster. Communities of practice (CoPs), sometimes called "learning networks", are groups of people who share a set of problems or a passion about a topic, and who increase their knowledge in this area through discussion and shared experiences. Communities of practice create a body of shared expertise and promote best practices, both of which are principles of the Scholarship of Teaching and Learning (SoTL) movement.

Creating communities of practice on the McMaster campus is a step toward creating "an inclusive community with a shared purpose", one of the goals of *Refining Directions*. The creation of communities of practice was also recommended by the Task Force on Teaching and Learning (TOTAL) in its initial report released in 2008.

The four communities of practice are: *First Year Instructors*, *Teaching Professors*, *Teaching with Technology*, and *Pedagogy*.

More information about each of the following communities of practice can be found on the community's wiki or by contacting the coordinator (see below).

### First Year Instructors

Coordinator: Bridget O'Shaughnessy  
([oshaubr@mcmaster.ca](mailto:oshaubr@mcmaster.ca))  
Wiki: [http://wiki.mcmaster.ca/1st\\_Year\\_Instructor\\_CoP/](http://wiki.mcmaster.ca/1st_Year_Instructor_CoP/)  
Upcoming Meetings: March 24, 1:00-2:00 p.m.  
T13 - 113

### Pedagogy

Coordinators: Joe Kim  
([kimjoe@mcmaster.ca](mailto:kimjoe@mcmaster.ca))  
& Chris Teeter  
([teetercj@mcmaster.ca](mailto:teetercj@mcmaster.ca))  
Wiki: [http://wiki.mcmaster.ca/Pedagogy\\_CoP/](http://wiki.mcmaster.ca/Pedagogy_CoP/)  
Upcoming Meetings: March 30, 4:00-5:00 p.m.  
T13 - 113

### Teaching Professors

Coordinator: Sue Vajoczki  
([vajoczki@mcmaster.ca](mailto:vajoczki@mcmaster.ca))  
Wiki: [http://wiki.mcmaster.ca/Teaching\\_Professors\\_CoP/](http://wiki.mcmaster.ca/Teaching_Professors_CoP/)  
Upcoming Meetings: TBA

### Teaching with Technology

Coordinators: Terry Flynn  
([tflynn@mcmaster.ca](mailto:tflynn@mcmaster.ca))  
& Muriel McKay  
([mckay@mcmaster.ca](mailto:mckay@mcmaster.ca))  
Wiki: [http://wiki.mcmaster.ca/Teaching&Technology\\_CoP/](http://wiki.mcmaster.ca/Teaching&Technology_CoP/)  
Upcoming Meetings: TBA



# Scholarship of Teaching & Learning (SoTL) News

## McMaster Launches First Annual Symposium on Teaching and Learning

**Nancy Fenton** - Educational Consultant, CLL

On December 8, 2009, the Centre for Leadership in Learning, in collaboration with the Faculty of Health Sciences Learning Technologies Group, RIVET, launched McMaster's first annual Scholarship of Teaching and Learning Symposium. "We are thrilled to be co-hosting the inaugural SoTL Symposium," said Sue Vajoczki, acting Director of the Centre for Leadership in Learning (CLL). The Symposium provided an opportunity for McMaster faculty, instructors, staff and students interested in the scholarship of teaching and learning to connect, exchange ideas and strengthen the research community in teaching and learning.

Walter Peace, Professor of the School of Geography and Earth Sciences at McMaster University, gave the keynote address entitled, "Knowing the Place for the First Time: Reflections on Thirty Years of Teaching." Inspired by T.S. Eliot's poem, *Little Gidding*, Professor Peace shared personal reflections on thirty years of teaching through a lens of change (institution, students and teachers). He challenged us to think about the implications

for teaching and learning in an era of greater scrutiny where a model of student as consumer/university as education provider is dominant. His concluding remarks brought us full circle -- "to know the place for the first time" -- provoking us to reflect upon what we can and should do to inform our teaching.

Two interactive workshops featuring the basics of quantitative and qualitative research methodologies kept us engaged in lively discussion throughout the morning. Dr. Ken Meadows, University of Western Ontario, discussed principles of quantitative research design, including practical tips for designing teaching-based research projects. Dr. Philip Savage of McMaster University provided a broad understanding of key qualitative techniques for enhancing evidence-based assessments of teaching and learning.

The afternoon concurrent sessions offered participants an opportunity to hear a wide range of teaching and learning projects presently underway at McMaster University.

A total of thirteen peer-reviewed papers representing McMaster's six Faculties were featured in the program. A few of the topics included, "The Impact of a Transformative Learning Experience in a MBA Leadership course," "The Use of Podcasting, iClickers and Web 2.0 Tools to Engage Year 1 Students" and "The Many Faces of Inquiry in the Social Sciences". These sessions not only showcased innovative projects in scholarship of teaching and learning, they also fully engaged participants in collaborative conversations about future research possibilities. All in all, we were excited to have successfully launched our inaugural symposium. "We see a bright future for educational research at McMaster University and look forward to working with instructors to achieve distinction in the scholarship of teaching and learning," said Sue Vajoczki.

The program along with a selection of PowerPoint presentations can be viewed at <http://cll.mcmaster.ca/sotl/>.

## President's Awards for Excellence in Teaching

**Nomination Deadline:**  
**March 8, 2010**

The President's Awards demonstrate the value McMaster attaches to its educational function and recognize those who, through innovation and commitment, have significantly enhanced the quality of learning by McMaster students. All full-time and part-time faculty (including those on contract) are eligible.

[http://cll.mcmaster.ca/awards\\_and\\_grants/president\\_award.html](http://cll.mcmaster.ca/awards_and_grants/president_award.html)



## Workshops

**Open Classrooms Event:**  
**Dr. Teal McAteer**

**March 8th, 12:30 - 2:30 p.m.**  
**Open class meeting: BSB 135**  
**Talkback: BSB 238A**

Dr. Teal McAteer, Assistant Professor in the Degroote School of Business, is a 2009 MSU Teaching Award Nominee and 2005-2006 MSU Teaching Award Winner. She invites us to join her Organizational Behaviour class on March 8, 2010 at 12:30 in BSB room 135. The topic of that day's lecture is 'Conflict and Stress Management in the Workplace'. There will be a discussion following the lecture in BSB room 238A at 1:30, so plan to meet afterwards and bring your questions for Dr. McAteer!

Register at: <http://cll.mcmaster.ca/events/>

**"Improving Personal Efficiencies for the Stressed-out, Over-worked, Over-tired Instructor."**

**March 17th, 10:00 - 11:30 a.m.**  
**MDCL 2232**  
**Facilitated by: Peter Walsh**

Using principles drawn from the executive coaching and personal productivity literature, this workshop will address some of the challenges of the over-worked, stressed-out instructor: by-passing action drags (e.g., procrastination), reducing info stress (e.g., perceived disorganization), improving task management, and avoiding various productivity traps that cumulatively can over-stress the otherwise highly effective instructor.

Register at: <http://cll.mcmaster.ca/events/>

## In the CLL Library...

The Centre for Leadership in Learning is home to a library of more than 7000 articles and several hundred books about teaching and learning. These are available for any member of the McMaster teaching and learning community to borrow. Here are a few recent additions to our collection:

Banta, T.W., Jones, E.A. & Black, K.E. (2009). *Designing Effective Assessment: Principles & Profiles of Good Practice*. San Francisco: Jossey Bass.

Bok, D.C. (2006). *Our Underachieving Colleges: A Candid Look at How Much Students Learn and Why They Should be Learning More*. Princeton (NJ): Princeton University Press.

Duarte, N. (2008). *Slide:ology - the Art and Science of Creating Great Presentations*. Sebastopol (CA): O'Reilly Media.

Moely, B.E., Billig, S.H., & Holland, B.A. (Eds.). (2009). *Creating Our Identities in Service Learning & Community Engagement*. Charlotte: Information Age Publishing.

Tapscott, D. (2009). *Grown Up Digital: How the Net Generation is Changing Your World*. New York: McGraw-Hill.

Zimmerman, B., Lindberg, C., & Plsek, P. (2008). *Edge Ware: Lessons from Complexity Science for Health Care Leaders*. (3rd ed.) Irving (TX): VHA Inc.

We also hold copies of the most recent issues of several teaching and learning journals, including *Research Into Higher Education*, *The American Educational Research Journal*, *The Canadian Journal of Higher Education*, and *New Directions for Teaching and Learning*.

Our full collection can be searched via the University Library Catalogue (<http://libcat.mcmaster.ca/>), or by visiting <http://cll.mcmaster.ca/resources/>.

## TA Notes

### Motivating Students

Erin Aspenlieder - TA Network Coordinator, CLL

Many TAs (and many instructors) express frustration after they spend hours on preparation for a tutorial or lab only to find their students have not prepared for the session, or do not participate fully. In some cases no matter what you do students will continue to come to class unprepared and unmotivated; however, by using some of the strategies listed here, you may find that you can more easily engage students and save yourself some prep time, too!

#### Discuss!

Research on learning suggests students learn better (i.e. they retain more information and have a "deeper" connection to the material) when they *do* something, rather than being *told* something. Have your students come up with one or two discussion questions before the tutorial. In the time before tutorial starts (the five or ten minutes of generally awkward silence), collect their questions and pick one or two and write them on the board. Using questions students have generated to form the basis of the discussion ensures they feel the discussion is relevant to them, and it also saves you some time!

#### Expect!

When students come to class unprepared the TA might say "well, I didn't really expect you to get all the reading done, there was a lot of it," or, "you can just observe while we perform the experiment." Research suggests that your expectations have a *major* impact on student performance. Tell your students you expect them to do the reading or the pre-lab questions! Come to an agreement about the expectations and consequences for pre-lab/pre-tutorial work (can they *come* to class without doing the work?). If all else fails, devote some class time to complete a section of the reading or to solving a sample problem and use this "shared example" to form the basis of your discussion or lesson. Students can't help but participate, and you are sure that everyone completes the work.

#### Variety!

Using the same format for each class can save you some time, but it can also bore and disengage your students because they know exactly what to expect and exactly



Stuart Rayner  
Photographer, St. Helens

how much (or how little) to prepare. By using different active learning techniques you can both appeal to different learning styles *and* keep your students motivated... if only by virtue of curiosity. Some activities could include: a debate; case studies; brainstorming (alternative) solutions to a shared question or problem; a demonstration; small group discussion with a large group discussion to follow. Check out the TA Network Wiki at <http://wiki.mcmaster.ca/TAN/> for explanations of these ideas and for even more suggestions. To save yourself some time you can assign one or two students the task of designing an "activity" (instead of the boring old "presentation") related to the subject for that class. Students often participate more readily for a colleague, especially if they know that they will also be relying on class participation for the activity they will lead.

## "Motivating Students."

May 19th, 10:00 - 11:30 a.m.

MDCL 2232

Facilitated by: Dr. Teal McAteer

Motivating others comes from helping them see the connections between "Head to Heart to Hands". Come and learn practical techniques that will increase your ability to:

- Increase audience engagement;
- Develop positive energy and passion in others;
- Ensure coverage of critical learning principles;
- Fulfill key components leading to effective teaching.

Register at: <http://cll.mcmaster.ca/events/>



# Teaching With Technology

## 21 i>Clicker Base Stations Installed in McMaster Classrooms

**Beth Marquis** - Educational Consultant, CLL

Clickers - handheld response systems used to poll students in class - are becoming increasingly common at McMaster. In the 2009-10 academic year alone, the devices have been used in more than 30 courses from across McMaster's six Faculties, and individual i>Clicker remotes have been purchased by more than 5,400 students. In total, 12,800 i>Clicker devices have been sold at the University bookstore since 2006-07.

Existing pedagogical scholarship suggests that this burgeoning interest in classroom response systems is well founded. Studies have consistently illustrated that - when used well - clicker systems can: help to maintain students' interest and attention; stimulate in-class discussion; and provide instructors with useful, real-time feedback about students'



comprehension of course content. (See 'Resources' for a selection of references).

In response to these converging factors, the Centre for Leadership in Learning has worked with the vendor and with Classroom Audio Visual Services (CAVS) in order to outfit 21 of McMaster's most heavily used

classrooms with i>Clicker base stations. Any instructor teaching in one of these clicker-ready classrooms and interested in using the system simply needs to acquire an instructor remote and to download the i>Clicker software to a USB flash drive that can be plugged into the 'i>Clicker cable' on the podium computer. CAVS and CLL staff are available to provide technical and pedagogical support, respectively.

This initiative represents a significant step forward for clicker use on campus, making it easier for instructors to make use of the technology if they so desire, and potentially encouraging new users to give classroom response systems a try. Given the documented benefits of clicker use, this is exciting news indeed.

## Which rooms have installed base stations?



**ABB:** 102

**BSB:** B135, B136, 106, 147

**CNH:** B107, 104

**ITB:** AB102, 137

**JHE:** 264, 376

**KTH:** B135

**MDCL:** 1105, 1110, 1305/07, 1309, 3020

**MUMC:** 1A1

**T13:** 127

**TSH:** B128, 120

As additional classrooms are equipped with i>Clicker bases, their listings on the CAVS classroom directory will be updated accordingly.

## Using the Installed i>Clicker Base Stations

1. Acquire an instructor remote from CAVS, and order your student remotes from the bookstore (as you would normally order textbooks).
2. Download the i>Clicker software at: <http://iClicker.com>. To use the podium base stations, you'll need the most recent Windows version, found under 'Instructor Downloads'.
3. Extract the i>Clicker zip file - this will create an i>Clicker Win folder on your desktop.
4. Copy this folder to a USB drive that can be brought to your classes. The folder on your desktop and the original zip file can be deleted.
5. Open the i>Clicker software on your USB drive and click the 'Add Course' button. Add the relevant information for each class in which you plan to use clickers.
6. When you arrive for your class, plug your USB drive into the 'i>Clicker' cable on the podium (marked with coloured tape).
7. Open the i>Clicker software, and select the appropriate course. In the resulting dialog window, select 'Your Settings and Preferences.'
8. In the settings area, enter the frequency code (made up of 2 letters) for the room you are in. This information can be found on the classroom podium.
9. Still in the Settings area, enter the code on the back of your instructor clicker under 'Instructor's Remote ID.' Choose 'Set for Course' or 'Set for Session,' depending on your situation.
10. Select 'Start Session.' If you wish to use

i>Clicker in combination with PowerPoint, open your presentation as you ordinarily would. Your i>Clicker instructor remote will also serve to advance your slides (push the 'C' button to advance and the 'D' button to reverse).

11. Instruct students to set their remotes to the room frequency. To do this, they need to hold down the power button. Once the blue light flashes, the two-letter code can be punched in. If the frequency has been set correctly, a green light will flash and the blue light will switch to a steady illumination.
12. To start polling for a clicker question press 'A' on your instructor remote. Press 'A' again to stop polling, and 'B' to display or to hide the results.

# Teaching with Technology

## Good Practices

- Make sure you're comfortable with the technology before using it in class. Know how to work with the i>Clicker software, for example, and how to help students change remote frequencies. Both CAVS and CLL have a loaner set of i>Clickers that instructors can borrow for this purpose.
- Attempt to prepare for potential problems before they occur. What procedure will you follow when students forget to bring their clickers to class, and/or when individual clickers fail? How will you dissuade students from cheating by 'clicking in' for absent classmates?
- Explain your reasons for employing clickers and your expectations of students vis-à-vis clicker use in the first class meeting.
- Beware of assigning substantial course credit for clicker activities, particularly while you're familiarizing yourself with the technology.
- Consider refraining from using i>Clicker's online registration system, which stores student data on servers located in the US, wherever possible.
- Don't use clickers *strictly* to record attendance. Much research suggests that this strategy breeds student resentment rather than engagement.
- Don't overuse clickers. It's often effective to integrate a clicker question into a lecture every 15 minutes or so - when research suggests that student attention is most likely to flag.
- Include the i>Clicker room frequency at the beginning of PowerPoint presentations, and/or write it on the blackboard for students' reference.
- Try to write at least some difficult clicker questions that challenge students and instigate discussion and debate.

## Select Resources:

- Bruff, Derek. Classroom Response Systems. [http://www.vanderbilt.edu/cft/resources/teaching\\_resources/technology/crs.htm](http://www.vanderbilt.edu/cft/resources/teaching_resources/technology/crs.htm)
- Caldwell, Jane. (2007). Clickers in the large classroom: Current research and best-practice tips. *Life Sciences Education* 6, 9-20.
- Kay, Robin H. & Ann LeSage (2009). Examining the benefits and challenges of using audience response systems: A review of the literature. *Computers & Education* 53, 819-827.
- University of Colorado Science Education Initiative & University of British Columbia Carl Wieman Science Education Initiative. (2008). *An instructor's guide to the effective use of personal response systems (clickers) in teaching*. <http://www.cwsei.ubc.ca/resources/clickers.htm>
- University of Wisconsin-Milwaukee. Student Response Systems - Faculty Resources. <http://www4.uwm.edu/lrc/srs/faculty/index.cfm>
- University of Alberta Centre for Teaching and Learning. i>Clicker Overview. [http://www.elearning.ualberta.ca/click/click\\_over.php](http://www.elearning.ualberta.ca/click/click_over.php)

## Why Use Clickers?

- Asking students questions about the course material helps get them engaged in the learning process (and clickers allow several students to answer at once).
- The anonymity of clickers empowers quieter students and encourages them to participate.
- Responses help instructors to judge students' understanding and adjust lecture material accordingly.
- Clicker questions allow students to assess their understanding and ability.
- Responses allow common opinions and misconceptions to be revealed and explored.
- Clickers can help make a classroom learner-centered, creating a way to allow students to select topics for discussion, for example.

Adapted From: "Using 'clickers' to Engage Students and Enhance Learning." University of Calgary Teaching & Learning Centre 'Tip Sheet.' (licensed under the Creative Commons Attribution-NonCommercial-ShareAlike 2.5 License.)

## For Support:

### Bookstore Contact:

Ted Allaby, [eallaby@mcmaster.ca](mailto:eallaby@mcmaster.ca)

### Technical Support:

Otto Geiss, CAVS, [geisso@mcmaster.ca](mailto:geisso@mcmaster.ca)

Faculty of Social Sciences: Nick Marquis, [marquis@mcmaster.ca](mailto:marquis@mcmaster.ca)

### Pedagogical Consultation:

Beth Marquis, CLL, [marquie@mcmaster.ca](mailto:marquie@mcmaster.ca)

Catherine Swanson, CLL, [swanson@mcmaster.ca](mailto:swanson@mcmaster.ca)

### Online Tutorials & Guides:

<http://iclicker.com/>

## 3M National Teaching Fellowships Silver Anniversary Celebrations

June 22 - 23, 2010

Le Meridien King Edward Hotel - Toronto, ON

Co-sponsored by the Society for Teaching & Learning in Higher Education (STLHE), 3M Canada, McMaster University's CLL, University of Saskatchewan, & Wilfred Laurier University.

"For the past 25 years, the Society for Teaching & Learning in Higher Education and 3M Canada have partnered to award the 3M National Teaching Fellowships for outstanding teaching and educational leadership in a broad range of disciplines across small and large Canadian universities. On Wednesday, June 23, 2010, in Toronto, a special event will mark the silver anniversary of the Fellowships to give thanks to our students for their part in our careers and ... to 3M Canada for its generous support" (from the event website).

Further information available at:

<http://www.mcmaster.ca/3Mteachingfellowships>

## Society for Teaching & Learning in Higher Education (STLHE) Annual Conference

'Creative Teaching and Learning:  
Exploring, Shaping, Knowing.'

June 23 - 26, 2010

Ontario College of Art & Design and  
Ryerson University - Toronto, ON

"The conference, "Creative Teaching and Learning: Exploring, Shaping, Knowing", recognizes the important place of creativity in pedagogical approaches in higher education. This conference will provide an opportunity for stakeholders in all areas of higher education to share and explore what creativity means in teaching development, curricular design, and teaching methodologies, as well as fostering creativity in students" (from the call for abstracts).

Further information available at:

<http://luna.ccs.ryerson.ca/stlhe2010/index.php>



# Teaching With Technology

## Clicker Case Study: i>Clickers in Chemistry 1A03

**Jeff Landry** - Instructional Assistant, Department of Chemistry

With a show of hands, how many people would say the age-old education question is: How do you actively engage students during a lecture? Did you raise your hand? If not, why? Did you disagree? Were you inhibited by the possibility of being wrong? Or were you busy texting, sleeping, changing your Facebook status, drawing doodles or my personal favourite, playing Mario Kart when the question was asked?

Getting students to think during lecture is a difficult task. Getting students to respond can be more complicated; however applying concepts as they are presented can be critical in developing a solid understanding of course material. During the summer and fall semesters of 2009, Chemistry 1A03 began using i>Clickers in lecture and tutorials in an attempt to help actively engage students while also providing a real time information source on the comprehension of material.

**Three methods were used to incorporate i>Clickers:**

### 1) Diagnostic Questions

As chemistry is additive, with a varying demographic entering year one, diagnostic questions were posed at the beginning of a new unit to establish if the assumed knowledge was as expected. This allowed for content delivery to

be accelerated or slowed depending on the student background.

### 2) Formative Questions

Once a key concept was presented during lecture, formative questions were posed in an attempt to encourage active learning. Questions were both qualitative and quantitative, with times from 30 seconds to 3-5 minutes given to respond. Group discussion was encouraged to promote the exchange of ideas and understanding. Depending on the response distribution, review of the solution was tailored to affirm understanding or correct common mistakes.

### 3) Formative Tutorial Questions

i>Clicker questions in tutorial served two purposes.

A) Given the increase in size of Chemistry 1A03, mandatory tutorials have become obsolete for logistical reasons. Student feedback indicated that tutorials were useful, but in reality without being compulsory the incentive to attend was not there. Incorporating i>Clicker questions into tutorials presented a fast and efficient method of taking attendance, and, when linked to marks, provided encouragement to attend.

B) Even the most seasoned instructor encounters issues when leading student

participation in a classroom setting. Such a deficiency can become even more evident for many teaching assistants. Circumventing an environment where students copy solutions to problems they do not understand, in our experience, is challenging to achieve. Presenting unseen i>Clicker questions relating to the current course material provides a motivation for students to self organize and discuss the problem at hand.

Over the course of the term, ~ 50 questions were presented (10 diagnostic; 40 formative: 30 lecture, 10 tutorial). Diagnostic questions did not count for marks, while formative questions counted for 2% of the overall mark, where only correct answers (as a range, see below) were used for a final grade calculation. Determination of the grade in this manner provided a low risk and low stress environment where incorrect answers or missed lectures did not necessarily mean a loss of marks.

% of Questions Correctly Answered	Grade Out of 2
80-100	2
65-79	1.5
50-64	1
40-49	0.5
<40	0

**An Update on ELM**  
McMaster's  
Electronic Learning  
Management System

*will be held on*  
**March 29, 2010**  
**3:30 p.m.**  
**GH - 111**



## Learning Technologies Symposium

**April 20, 2010**

McMaster University

The Learning Technologies Symposium is an opportunity for McMaster faculty, instructors, staff and students interested in Learning Technologies to connect, exchange ideas and learn more about innovations in Learning Technology at McMaster.

This year's event will include the following components:

- a keynote speaker;
- networking opportunities;
- a showcase highlighting teaching technologies at McMaster; and,
- peer reviewed research presentations

Though we welcome all proposals relating to technology in teaching and learning, we encourage submissions in the following areas:

- The blended classroom environment.
- Mobile technologies in teaching and learning.
- Applications of multimedia in student learning.
- Using technology in student assessment.
- Web 2.0 technologies and building teaching & learning communities.

Please submit abstracts online at:

<http://tinyurl.com/lts2010>

Deadline for submission:

**Thursday, March 11, 2010  
11:59 p.m.**

This event is hosted as a collaborative initiative between the Centre for Leadership in Learning and RIVET, the LT Division of FHS' Program for Faculty Development.

## Teaching with Technology

### Clicking In To Educational Technology. i>Clickers: A Student's Perspective

**Natalie Paddon** - 4th year English Student

Until recently, I had never encountered i>Clickers in any of my classrooms, despite being in my final semester at McMaster. This semester, two of my classes are using i>Clickers so I purchased one and have begun to learn about its functions.

Although the semester has only started, the benefits of using i>Clickers in my classrooms are apparent. Firstly, i>Clickers seem to increase attendance and participation of students. But student attendance does not necessarily correlate to student engagement. When assigning grades to student i>Clicker responses, my professors have been disregarding the accuracy of student answers and instead allotting marks to students solely for participation. A false sense of student engagement may arise, seeing as a student could pay enough attention in class to know when to press a button on his i>Clicker without actually concentrating on the material in lecture.

Another useful purpose i>Clickers serve is testing students on in-class material. i>Clickers are beneficial as they indicate to the professor how much students are comprehending and retaining information. Students become aware of their grasp on course material so that if they are confused, they are able to arrange meetings with professors or teaching assistants prior to writing the first test or assignment in order to better prepare themselves.

Despite the numerous benefits that i>Clickers bring to the classroom, other students have brought a couple of problems to my attention. "Students lose marks anytime they cannot attend class, no matter what the circumstance. It could be a valid excuse such as a doctor's appointment or a basketball game, but it is difficult for professors to accommodate these situations," says Taylor Chiarot, a 3rd year McMaster sociology student.

Sarah Ramage, a 3rd year McMaster student in commerce, discussed academic dishonesty. Sarah explains that many students in her classes have tried to bring other students' i>Clickers to class for them so that they can still gain the marks even if they do not attend class. In large lectures, this can be a difficult thing to control, unless professors have teaching assistants that are willing to monitor the lectures.

Regardless of critique, the use of i>Clickers, coupled with other strategies, seems to be an effective option to increase student engagement. From a student's perspective, i>Clickers are a great supplement to a lecture in order to help manage problems with participation and attendance that seem to be plaguing the university, while increasing the connectivity between professors and students that can get lost in large lecture halls. Although I have only begun to use them, the effectiveness of i>Clickers as educational technology is already apparent to me and I cannot imagine why any student would discourage the use of this technology in their classroom. They are enhancing my educational experience.





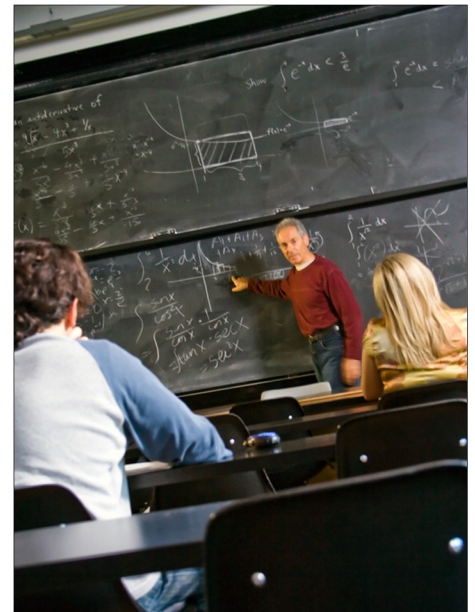
# CLL Teaching & Learning Grants

**Next Deadline: June 1, 2010** (Grants up to \$1000)

CLL disburses large grants of up to \$10,000 annually, with a submission deadline of March 1st. Submissions for grants of up to \$1000 are accepted 3 times per year on June 1st, October 1st, and December 1st.

## Criteria

1. The key criterion for these grants is that the proposed project should improve the quality of students' learning. The project should deal with an identified learning problem, i.e. the project begins with a statement of what it is that students are either not learning, or are not learning well. The applicant should identify the evidence that led him/her to identify the nature and scope of the problem. This might be data collected, or inferences from observations made while teaching.
2. The project should deal with the problem in a realistic way so that it stands a reasonable chance of being completed, of being evaluated, and of being accessible and useful to others.
3. The project should build upon what is already known about teaching and learning. Applicants should demonstrate some familiarity with potential solutions that may be working elsewhere.
4. The Grants cannot be used to fund projects that involve normal instructional tasks such as updating course content, preparing bibliographies, etc.
5. The grant fund is intended to provide seed money and not to support ongoing expenses. Preference will be given to projects which receive tangible support from the department or faculty and, as far as possible, are assured of continuing support, should the project prove successful.
6. Projects involving applied educational research are acceptable. This is defined as research whose purpose is to determine how students in a particular class or course can learn more or more effectively. It does not extend to theoretical studies.
7. Preference will be given to projects which meet the above criteria and:
  - benefit large numbers of students, faculty members or teaching assistants
  - have potential application to other courses
  - optimize the use of existing resources
  - involve collaboration between different departments or faculties.
8. Successful applicants are required to submit a written report on the project to the CLL, and are expected to share the results of their project through seminars or discussions on teaching and learning at McMaster University.



See: [http://cll.mcmaster.ca/awards\\_and\\_grants/grants.html](http://cll.mcmaster.ca/awards_and_grants/grants.html) for more information.

## Workshop

**"Researching Your Own Teaching: A Practical Introduction to the Scholarship of Teaching and Learning."**

April 26-30, 8:30 a.m. - 5:00 p.m.

Community Room, Mills Library

Facilitated by: Dr. Chris Knapper and Dr. Serge Piccinin

For those who wish to get started on the path to conducting research into the scholarship of teaching and learning, CLL offers support by providing a five-day institute. This is an excellent opportunity to learn from highly experienced faculty members in this field. The goal of the institute is for each participant to leave with a workable plan for their own research project to be implemented over the next academic year. Participants must identify a question to pursue (we can assist you with this). You will refine this question during the institute, and develop a plan for your own research.

Register soon at: <http://cll.mcmaster.ca/events/>

## Call for Submissions

**37th Annual OCUFA Teaching & Academic Librarianship Awards**

"OCUFA is proud to celebrate outstanding achievement in teaching and academic librarianship at Ontario universities. Anyone within the university community can nominate a faculty member or librarian.

Award recipients are selected by an independent OCUFA committee made up of faculty, librarians, and student representatives" (from the call for submissions).

**Deadline for nominations for 2009-2010 awards: May 7, 2010.**

See [http://www.ocufa.on.ca/Awards.tala.guidelines\\_en.index.gk](http://www.ocufa.on.ca/Awards.tala.guidelines_en.index.gk) for further details.

Inquiries: 416-979-2117

## Submission Guidelines

The Centre for Leadership in Learning's Connections Newsletter will be published twice yearly, and will contain a variety of articles of relevance to the Teaching and Learning community at McMaster and beyond. We welcome submissions from all interested parties. Guidelines for contributors can be found below.

The Centre for Leadership in Learning (CLL) editorial team will review all articles submitted for publication. CLL reserves the right to adjust the length of submissions in accordance with the space restrictions of the newsletter. Please note that materials included in Connections may be reprinted or copied for institutional use.

While articles can be submitted for consideration at any time, please note that the deadline for inclusion in the Fall 2010 issue is July 23, 2010. Submissions should be forwarded to Beth Marquis ([marquie@mcmaster.ca](mailto:marquie@mcmaster.ca)).

### Guidelines for Contributors

#### Article Length:

- 300-500 words

#### Audience:

- The entire teaching & learning community at McMaster, including instructors of all types & in all disciplines, Teaching Assistants, Post-doctoral Fellows, Instructional Assistants, Deans, Chairs and Directors, etc.
- Educational developers and others working at Teaching & Learning Centres across Canada.

#### Tone:

- Direct and accessible; free of discipline/field-specific language wherever possible (one should be able to understand the piece following a quick skim).
- Practical and informative.

#### Format:

- Sentences and paragraphs should be brief and concise.
- Headings, sub-headings, charts, etc. are encouraged.

#### Accompanying Imagery:

- If possible, please submit a photo (either of yourself or of something relevant to the article) along with your text. Images should be at least 300 dpi.

#### Citations:

- Any necessary citations should be given in APA style.

*Partially adapted from the Society for Teaching & Learning in Higher Education (STLHE) Newsletter Writing Guidelines.*  
<http://www.stlhe.ca/en/publications/newsletter.php>

CLL is designed to enable your success in teaching and learning. We look forward to helping you create the best possible learning experience.

Please visit our website and find out more about our services and resources, participate in one of our events or contact us directly.

At the CLL we value:

- Approachability
- Collegiality & Collaboration
- Adaptability & Innovation
- Ethical, Evidence-Based Practice

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