

Teaching Matters

great teaching . . . by design

Issue No. 32

http://cte.uwaterloo.ca/TeachingMattersArchives.html

January 2010

Appreciating Waterloo in Times of Change

e have all likely heard the cliché "the grass is greener on the other side". It is easy in times of fiscal restraint and heavy workloads to wonder if someone else has it easier. How are other institutions handling things? Having just attended an international conference in the U.S. and coordinated a new biannual meeting of local teaching centre directors, I can tell you that life at UW is really very good.

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At the conference. I heard about teaching centres that lost half of their staff in a day, with those who were left having the scope of their roles severely reduced. In the meeting with my local colleagues, I heard about significant staffing restraints, linked in part to the various unions represented on their campuses. We may be faced with another round of budget cuts for this coming year, but at least we have a say in what gets cut and how we restructure our units and/or services to serve our stakeholders as best we can.

I appreciate how difficult it is to let anything go, but our resources are always finite even when budgets aren't so tight. It is hard, though, when we see how many good programs and services we could provide and know that we can't do it all. This situation can be detrimental to the energy and enthusiasm of our staff members, but not everything has to go. Good ideas can be saved for a later opportunity. Old ideas can be rethought in light of newer ways of doing things. New faculty and staff, including coop students, can ask good questions that get you rethinking why you do what you do. Every day comes with the chance to learn something new.

In my role as Interim Director, I am thankful for CTE's creative and committed staff members. We have all engaged in an activity to set individual goals and take a serious look at what needs to be dropped or off-

loaded to someone else. We have done this in a collegial, productive manner, giving feedback and offering support to create goals that are manageable for us personally and supportive of where our centre is going to support your efforts in teaching and learning.

In closing, I think that change regardless of whether it happens in support units or academic departments—is largely about how you talk about it and how much choice the individuals involved have. Kouzes & Posner (2002) espouse the power of positive language and the value of choice in times of change. Words significantly define our reality, and choice provides a sense of ownership and control when our daily routines become uncertain. At CTE, we constantly see change in our work. Yet the changes typically occur in an atmosphere of optimism and anticipation rather than negatively or defeatism. The focus is on moving forward: that's what it's like to be at Waterloo. So, let's continue to give choices and make decisions that we express as opportunities for ourselves and those around us.

Reference:

Kouzes, J.M. & Posner, B.Z. (2002). *The leadership challenge* (3rd ed.). San Francisco, CA: Jossey-Bass.

Donna Ellis

Facilitating Teaching Transformation

An interview with Gord Stubley (Mechanical & Mechatronics Engineering) and Judi Jewinski (Renison English Language Institute)



Judi Jewinski and Gord Stubley

Teaching Excellence holds a four-day intensive course redesign institute called the Teaching Excellence Academy. The principles behind the session can be found in the book Rethinking Teaching in Higher Education. Typically, faculty members going through the process hit some walls and frustrations each day until finally, their revised course outlines are displayed on the final afternoon for each other and for University administrators to celebrate.

Because of the challenges and frustrations in the first three days, one of the key roles during the week is Faculty Facilitator. While CTE and CEL staff offer guidance, expertise in design principles, and lead discussions, the work of the course transformations is helped tremendously by former participants sharing their past processes, reassuring current participants, and helping with the smaller group hands-on

time. Two alumni each year from different disciplines present about where they had been each day when they took the workshop, and then help to guide the individual and small group activities. For the past two vears, we've been privileged to have Judi Jewinski (class of 2006) and Gord Stubley (class of 2007) as our Faculty Facilitators. Just before they move on to other things, I decided to sit down with them to find out how this process has felt for them and how, if at all, being a facilitator has itself been developmental for their own teaching practices.

TMH: What were your initial thoughts on being asked to be a "faculty facilitator" in the Teaching Excellence Academy?

JJ: Well, of course, there was a bit of "Why me?" – I have no training for this role. I was unsure if I felt equipped, but still I was excited about the sharing that happens between people from across campus, about sharing my own stuff, and about viewing it all unfold from the other side of things, seeing other people's growth.

GS: For me, as MME Teaching Chair, I felt that to perform my mentoring role, I had to learn to help others without simply demanding that they follow "the Gord way" of doing things. I jumped at the opportunity to be a TEA Faculty Facilitator to improve as a mentor and for much the same reason as Judi – the

across campus factor. It amazes me that teaching challenges are so universal even though the framing and the language used to describe them may be different.

TMH: Talk a bit about the differences between participating in the TEA and becoming a Faculty Facilitator, and about the differences between your first and second years facilitating.

GS: I found it easier to be a Facilitator than a participant, for sure. The intensity is still there, but it isn't all the time – you can shut things off when you get home in ways you can't as a participant.

JJ: Yes – it was easier. You have confidence because you know where things are going.

TMH: In what ways do you think your differences were complementary?

GS: We were different? Although on the surface you'd think we are completely different, in the end, we're not really that much so. I think we played off the alikeness, not the difference, especially the second time through. Our approaches to handling conflicting principles or situations, our takeaways – in what really matters about teaching we are very similar.

JJ: I agree. We didn't plan it this way, but we presented a united front on stage.

Continued from page 2

GS: You see – right there – the stage metaphor is an artistic metaphor that if I, an engineer, were to think about while I'm presenting, I'd never even get started. Our ways of framing the world are different, but when you strip that away and think about how to help students learn, we are saying the same things.

TMH: Having completed a couple of years of facilitating, what are you taking away with you as a result?

JJ and **GS**: Enduring relationships built across disciplines!

GS: That and seeing the importance accorded to the TEA by the participants and seeing the support they receive from their administrative colleagues. The encouragement when Chairs, Deans, Vice Presidents, and the President attend the last day

poster session really speaks volumes. In my own practice, I've taken the things I've learned to facilitating an outside workshop for Engineering professors in Ontario.

JJ: For me, my door is open all the time and many people use it – coming in for advice and guidance – and I find that in my consultative role I've become more facilitative, more questioning. I've become better at teasing out responses, asking questions so that people come up with their own answers.

GS: In my teaching, I'd say I've become better at talking about implicit things, OR getting students to talk about those things. For example, in order to understand what went wrong in a midterm – I had students write a one-minute essay. I trusted them to work it out for themselves, and they did!

JJ: Oh and revisiting my course twice while watching others revisit theirs – I've made some changes around quizzing, and it's improved student participation markedly (there's close to zero absenteeism and I have more retention through to the next course level up).

TMH: And what advice would you give to others who are considering taking on the role?

JJ and GS: Go for it! Enjoy!

On April 14, 15, 16 & 19, 2010, Carey Bissonnette (Chemistry) and Bruce Hellinga (Civil & Environmental Engineering) will be our Faculty Facilitators. If you are interested in attending the Teaching Excellence Academy, contact your Chair or Donna Ellis, CTE.

Trevor M. Holmes

Research Award for CTE's Interim Director

his past fall at the annual 2009 Professional and Organizational Development (POD) Network conference in Houston, Texas, Donna Ellis and her research colleague Dieter Schönwetter from the University of Manitoba received the prestigious **Robert J. Menges Award for Outstanding Research in Educational Development**. This award was established in recognition of Bob Menges, an honoured scholar, and was first awarded at the 2000 POD conference in Vancouver. The award recognizes original research – quantitative or qualitative – that leads to systematic investigation and evidence-based conclusions. The award citation indicated that "Dieter and Donna's research makes an important contribution to the serious work we do in preparing graduate students. Where most disciplinary educational organizations have identified and codified the core

competencies essential for successful practitioners, Dieter and Donna have done that for graduate student professional development. Their survey shows us what competencies we have been emphasizing collectively, and what faculty developers need to help graduate students develop those competencies. The Committee admired the rigor of Dieter and Donna's research and its importance to the field of graduate student professional development."

The photo shows Donna and Dieter receiving the award from Menges Award Selection Committee Chair Mary-Ann Winkelmes, University of Illinois. Congratulations!



Donna Ellis, Mary-Ann Winkelmes, Dieter Schönwetter

Teaching Problem Solving in Physics

n December 11, 2009, UW's Physics & Astronomy department enjoyed a half-day teaching seminar. Guest speaker and workshop facilitator, Dr. Karen Cummings, from Southern Connecticut State University, shared her thoughts and strategies about teaching problem solving in physics.

Dr. Cummings indicated that problems do not have a clear path to a solution. For physics faculty members, textbook "problems" are really just "exercises" since the solution – and the approach to the solution – are clear. For most undergraduate students, however, these exercises are problems. In her talk, she discussed the issue of expert versus novice learners, indicating that teachers need to share their approaches to problem solving and teach students explicit strategies. Such strategies could include identifying goals and subgoals (means-end analysis), working backwards, creating diagrams and equations to model problems, and identifying applicable physics principles.

She advocated an organized framework for students to follow, from visualizing the situation to evaluating the final solution. However, students can struggle because they may only have fragments of the principles or math required,

have misunderstandings or misconceptions about key principles, lack an understanding of how to create meaningful frameworks, and/or lack the skills to reflect on or question their decisions and solutions. Expert problem solvers do not have such difficulties, and are typically comfortable even when they are not sure of the next step to take in a solution. Much discussion ensued. though, about whether it is helpful to flounder in front of students when solving a problem. Will the students stop paying attention if the teacher seems unprepared? How will all the material get covered in that class period? Dr. Cummings challenged the session participants to use the teachable moments that periodic floundering can bring. If teachers can articulate their thought processes as they work through a solution, that is very valuable learning for students – perhaps even more powerful than a review of all of the day's topics. Students typically only see a "clean" solution, not the underlying thought processes and approaches behind it. Dr. Cummings reinforced the need for teachers to reflect on their own problem solving approaches so they can share them with their students, become more aware of where students can become confused, and be able to model their approaches.

The workshop component focused on using cooperative groups to engage in solving context-rich problems. These problems are similar to mini case studies: situations found in the real world to which physics principles and concepts can be applied. Students benefit from working in groups because the problems are challenging. Even the very good students can benefit from discussing their approaches with others, and the students can reinforce the problem solving process for one another, from articulating the actual problem to solve to checking units and the solution for its plausibility. She provided a link to numerous context-rich problems, developed by Ken and Pat Heller from the School of Physics and Astronomy at the University of Minnesota.

Rohan Jayasundera from Physics & Astronomy has arranged an annual departmental teaching seminar for five years now. The rich discussions and thoughtful questions suggest that this type of event could be of value to any department on campus. If you are interested in setting up a departmental teaching event and would like to discuss your ideas, please contact Donna Ellis or Trevor Holmes in CTE.

Donna Ellis

TBRG Tuesdays for Teaching-Based Research Group members

Join your colleagues who are also conducting (or planning to conduct) research about teaching and learning for an informal chat about work in progress, research issues, sharing of tips and tricks, peer help on questions arising, etc. One-hour sessions starting at 10:00 am will be held in the Flex Lab (LIB 329) on the following Tuesdays: January 19, February 23 and March 30, 2010. No registration is necessary. Contact Nicola Simmons for further information.

Training Teaching Assistants to be Better Online Facilitators

had the good fortune last fall to collaborate with Rudy Peariso, an online learning consultant from the Centre for Extended Learning, to develop and facilitate two workshops that were part of our CUT program in September, 2009. The workshops were "Communicating and Facilitating in the Online Environment" and "Grading and Giving Feedback in the Online Environment". Our participants were drawn from two groups: teaching assistants and course coordinators of blended courses or fully online courses. For the uninitiated, blended courses are those that integrate substantial online activities, usually through UW-ACE, into face-to-face courses.

Teaching assistants of online and blended courses may have a variety of responsibilities: grading and giving feedback to assignments and tests, facilitating and grading online discussions. managing teams, and communicating details around the scheduling and course management issues. In the first workshop we looked at the communication tools that are available in UW-ACE and how the use of these tools can help create a sense of community in a course. We talked about the stages of development of an online discussion and how the facilitator can help students move through these stages and exchange and construct knowledge effectively as a group. The importance of the timing and quality of feedback to student learning and how to give feedback using the various tools in UW-ACE was central to the second workshop, as well as how to use rubrics to grade assignments, essays, online discussions and other learning activities.

Feedback from the participants in the workshops was very good. We revised both workshops for instructors involved in online and blended courses CTE 621 Communicating in UW-ACE will be offered Thursday, January 21, followed by CTE 622 Giving Feedback in UW-ACE on Friday. January 22, 2010. To register, log on to myhrinfo.

Jane Holbrook

New CUT TA Developer: Arash Shahi

s a Teaching Assistant Developer, Arash Shahi is responsible for observing teaching events, facilitating workshops, and providing feedback for participants in the Certificate in University Teaching (CUT) program. Arash completed his Bachelor's and Master's degrees in the structural field of Civil Engineering at University of Waterloo. He is now in the second year of his PhD studies in the same program. He has been a TA for a number of engineering courses, on campus as well as Distance Education. Arash believes that the CUT program has greatly complemented his love for teaching and is now very excited to work as a TA Developer with the program. He has been in Waterloo since 2002 and, and he is excited to bring his experience as a student and TA to the CTE. You can reach Arash at ashahi@uwaterloo.ca, or Ext. 37084.



Call for Teaching Award Nominations

Nominations for the Distinguished Teacher Awards and the Amit & Meena Chakma Awards for Exceptional Teaching by a Student are due in CTE (MC 4055) by Friday, February 5 and Friday, February 12, 2010 respectively.

For further information, contact Verna Keller. What constitutes an effective nomination letter? Check out Trevor Holmes' CTE Blog entry called Effective letters for teaching-award nominations.

What Guides Our Work

t CTE, we have been working our way through a number of activities to move us toward the development of a strategic plan. Under the leadership of our Interim Director, we have revised our mission statement and articulated a vision and key guiding principles for our work. We are also finalizing both individual and centre-wide goals for the next couple of years. The entire staff have contributed significantly to this work. In this article, we share the overall framework of what guides our work.

Vision:

To be the premier teaching centre in Canada within the next 5 years.

Mission.

The Centre for Teaching Excellence fosters teaching and learning of the highest quality at Waterloo.

We support the development of instruction by working collaboratively with departments and individuals at all career stages, and we promote the importance of effective teaching and meaningful learning across the university. We approach our work by listening to, questioning, encouraging, and celebrating Waterloo's teachers.

To achieve our mission, we:

- assist instructors with exploring, integrating, and evaluating different approaches to teaching and learning
- connect instructors to one another to create dialogue and build networks around teaching and learning
- respond to evolving needs and issues regarding teaching and learning within the university environment

Guiding Principles for our work:

- 1. Explore, integrate, and evaluate new/different approaches and ideas (i.e., pedagogy, modes of delivery, research, educational development) & offer support
- **2.** Build capacity and increase involvement in various aspects of teaching
- **3.** Identify synergies and build relationships with other units on campus, off campus, and internationally
- **4.** Enhance our profile and be leaders
- **5.** Respond to and anticipate university changes

If you have any comments on our ideas, please send them to <u>Donna</u> <u>Ellis</u>, CTE's Interim Director.

Donna Ellis

Annual CTE Research CV

CTE created its first annual <u>research CV</u> this fall. As you can see under the headings Grants & Awards, Publications, and Academic Service, we've been really busy producing four research grants, three book chapters, eight peer-reviewed journal articles, and numerous conference presentations/posters.

Congratulations Fall 2009 CUT and ITA Grads!



The following 14 students, representing all faculties at the University of Waterloo, completed the CUT program: Nino Antadze (ENV), Emre Celebi (ENG), Mohammed El-Abd (ENG), Mahdiyeh Entezarkheir (ARTS), Saleet Hanan (ENG), Alma Juarez Dominguez (MATH), Ali Kabiri (ENG), Zarrin Langari (MATH), B. Ramila Peiris (ENG), Mazeiar Salehie (ENG), Kelly Skinner (AHS), Mingming Su (ENV), Sanders Wong (ENG) and Kate Wood (SCI).

The following ITA Training participants completed their training in Fall 2009: Khaled Berbash (ENG), Silvana Mihailova (ENG), Prashant Prakash Mutyala (ENG), Mazhar Raja (ENG) and Hui Wang (ENG).

Upcoming Conferences

Opportunities and New Directions 2010

Wednesday, April 28, 2010 at the University of Waterloo Proposal Abstracts Due Date: Friday, January 29, 2010

The Teaching-Based Research Group (TBRG), in association with the Centre for Teaching Excellence (CTE) at the University of Waterloo and supported by the office of the Associate Vice-President, Academic, invites you to participate in a one-day conference of research on post-secondary teaching and learning. We welcome anyone interested in this scholarship to join us for an exciting opportunity to engage in conversations with likeminded colleagues from multiple disciplines and institutions about new research, work in progress, and emerging ideas.

Society for Teaching and Learning in Higher Education: Exploring, Shaping, Knowing

Location: Ryerson and the Ontario College of Art and Design, Toronto

June 23-26, 2010

Proposal Due Date: Friday, January 15, 2010

Two Teaching Conferences Support Graduate Student Presenters

In June 2010, two teaching-related conferences in Toronto will offer funding to support graduate student presenters who want to share their perspectives on issues of interest to graduate students and Teaching Assistants. This is a great opportunity to connect with graduate students and TAs from other institutions in Canada and the United States!

Below is a brief description of the two conferences with links to conference websites. The deadline to submit proposals to both conferences is **Friday**, **January 15**, **2010**.

On June 21-22, graduate students from Canada and the U.S. will participate in the "Navigating Your PATH: Exploring and Supporting Teaching Assistant and Graduate Student Development" conference. The conference will provide funding to help cover the costs for graduate student presenters. Consider submitting your conference proposal alone or together with another graduate student!

The Society for Teaching and Learning in Higher Education (STLHE) will hold its <u>annual conference</u> in Toronto (as noted above) on June 23-26, 2010. If your proposal is accepted for presentation at this conference, you will be eligible for funding from the Special Graduate Student STLHE Fund. The funds will assist with the costs of registration and travel.

Do you have questions about these two conferences? Would you like to discuss your idea for conference presentation or get feedback on your conference proposal? <u>Svitlana Taraban-Gordon</u> at the Centre for Teaching Excellence will be available to meet with you.



Learning about Teaching Symposium

The annual Learning about Teaching symposium will be held on April 26 & 27, 2010. Catherine Wehlburg from Texas Christian University will give a keynote address on assessing student learning on April 26 in the UW Humanities Theatre and then deliver two follow-up workshops for faculty members the next day. Details will be available later this term.

International Teaching Profile: Murray Haight

or Murray Haight (School of Planning), international teaching and training has been part of his academic career for over 23 years. Long before internationalization became part of the higher education vernacular, Murray was teaching university students in Indonesia. Vietnam. Laos and Cambodia. His international experience was certainly helpful when he started teaching ENVS 195: Introduction to Environmental Studies, in China to a group of more than 70 Chinese students enrolled in the Faculty of Environment 2+2 program. This joint education program, a partnership between UW and the Nanjing University of Finance and Economics, allows students from China to complete the first two years of their studies at their home university; the final two years are completed at UW.

ENVS 195 is an important course for students in the China 2+2 program. In addition to being one of the fundamental prerequisites, it also serves as a bridge to prepare them for their third and fourth year of studies in Canada. For many of the students, this is the first course in their field that they have taken in English.

The course schedule is quite intense: classes are held twice daily, seven days a week, for the period of 2 weeks. Any changes in the course content to accommodate the packed schedule and potential language issues? Murray responds with a resounding 'no': "It's equivalent to what the students are learning here. No watering down the content," he says during our interview. However, mastering a large amount of new academic



content in English (add to that an array of unfamiliar terminology!) poses a big challenge for students who are non-native speakers of English. To tackle this issue, Murray created a course glossary - a 40 page document that includes a short introductory letter to stu-

dents, an overview of the course, expectations for students and, most importantly, all of the important terms used in the course. Each term in the glossary is followed by definition and examples. Students receive the glossary via email several weeks before the start of the course. This way they can familiarize themselves with the course content and learn the course terminology in English. Both the students and the instructor believe that the glossary is a useful tool for navigating the course content and a good way to learn discipline-specific vocabu-

Aside from the use of a course glossary, what other tips does Murray have for instructors embarking on international teaching? Use your research contacts and international colleagues to familiarize yourself with the local context. Work on slowing down the pace of your delivery. And finally, as in any international voyage, expect that things won't always go as planned. So, have contingency plans and be flexible with your teaching plan!

Svitlana Taraban-Gordon

Course Internationalization Grants Available

Course Internationalization Grants of up to \$1,500 are administered by the CTE and funded by <u>Water-loo International</u>. The grant program supports faculty members bringing international perspectives into their courses. Grant details and <u>projects by past recipients</u> (since 2003 when the grant program began) are available on the CTE website. The deadline for proposals is **Monday**, **February 1**, **2010**. If you are interested in internationalizing your course, contact <u>Svitlana Taraban-Gordon</u> for details.

CTE Welcomes New Engineering Liaison!

e are very pleased to announce that CTE has a new liaison for the Faculty of Engineering. Dr. Samar Mohamed is no stranger to the University of Waterloo. She completed her MSc (2002) and PhD (2006) in the Department of Electrical and Computer Engineering and has had experience as a researcher, a teaching assistant, and most recently, as a mentor for the PDEng Program. We are looking forward to working closely with Samar and the faculty members in Engineering. Samar replaces Rosina Kharal in this role. Her office is E2 1307F and she can be reached by calling Ext. 35902 or emailing sssmoham@uwaterloo.ca.





January 2010

Issue No. 32

At the Centre, we provide leadership in advancing skilful, informed, and reflective teaching. *Teaching Matters* is published by the Centre for Teaching Excellence and edited by Verna Keller.

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ISSN 1918-8986

Remember to login to myHRinfo to register for CTE events.