



NEWSLETTER

Center for Enhanced Learning and Teaching

Spring 2011

Gearing up for the New 3-3-4 Curriculum

In recent years, the University has given a lot of its attention to the 4-year undergraduate curriculum that will be implemented in 2012. As an academic support unit, CELT plays a role in assisting teaching staff to prepare for the reform. Research studies on student learning are conducted so that we can understand students' needs better and bridge the gap between teaching goals and learner expectations. Apart from students' needs, we care about the needs of research postgraduate students (RPGs), faculty, non-faculty teaching staff and graduate teaching assistants (TAs) as well. In 2010, a new Professional Development Team was established to organize systematic professional

development programs for these four target groups. Funding was also provided to faculty or teaching teams who have innovative teaching ideas with a particular focus on the 4-year degree curriculum. As recommended in the recent UGC quality assurance audit report, we will continue to support faculty to adopt an outcome-based approach in their teaching.

Take a look at this issue of eCELT to know more about what has been happening with teaching and learning at UST and plans going forward related to the new curriculum.

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Upcoming Events

- Feb 2011** **2011 Spring TA Induction Program**
For more information, please visit <http://celt.ust.hk/ta/tahome04.htm>.
Online registration at <http://celt.ust.hk/taprog> is required for participation.
- Teaching and Learning Workshops**
Enhancing your Teaching with eTools
Click [here](#) to know more and register.
- Introduction to Thesis Writing**
By Dr John Milton, LC
- Projecting Your Voice, Protecting Your Voice (Advanced)**
By Prof Oliver Lo, SHSS
- A Series of Dialogue with Journal Editors**
(from Feb – Apr)
By Journal Editors from the Schools
- Mar 2011** **Working with Others: Social Quotient (SQ)**
By Vava Kwok, SAO
- Writing Literature Review**
By Prof Gregory James, LC
- Apr 2011** **Personal Effectiveness: Self-Confidence in Research**
By Sindy Yip, SAO
- Capstone Projects: What (capabilities) / How (activities) / Assessment**
By Prof Keith Thomas, CUHK
- Dissemination of Student Learning Research Findings**
By Dr Tak Ha, CELT
- Writing up Conclusion**
By Dr Keith Tong, LC
- May 2011** **Symposium on Engaging Undergraduates in Research and Inquiry: A Scholarly Dialogue**

How Well do you know UST Students?

Some interesting findings about UST students from studies conducted by CELT

A test of your knowledge about UST students

TRUE OR FALSE*

1. Over 2/3 of the students spent more than 8 hours in their study on a daily basis.
2. 80% of the students said their workload is *unmanageable all or most of the time*.
3. The average rating of students' relationship with the teaching staff has increased over the years.
4. During the period from 2007 to 2009, students reported a statistically significant higher level of participation in class discussion.
5. 50% of the students who participated in overseas exchange found the experience negative.

* Answers are on P.3.

Through your daily interactions with students at UST, you may have acquired a certain level of understanding about them. Since 2007, CELT has conducted a number of studies on our students, in particular their learning experience at UST. Perhaps you would like to compare your experiences with what CELT has found.

1. How many hours do students spend in their study on a "typical" day?

According to students' responses in a 2007 survey, over two thirds of them spent between 4 to 8 hours in their study on a daily basis. They typically spent about 6 hours on their study including class time, 9 hours on student and social activities, 2 hours at work, and 7 hours resting. While there is not much difference among schools, there was significant variation among the students.

2. Do students find their workload manageable?

In 2009, students were asked how heavy their study workload was during their three years of studies at HKUST. Around one fifth of the students said their workload was *unmanageable all or most of the time*, and less than two-fifths *manageable most or all of the time*.

3. How do UG students see their relationship with the teaching staff?

The average rating of student-teaching staff relationship has seen a slight but statistically significant increase during the period from 2007 to 2009. This is reflected in a higher level of interaction between students and the teaching staff as reported by the students in the same period. There is also an increase in the percentage of students who chose faculty/instructor when they were asked to name the person who was most able to help them in their study. So taking all the above data together, it can be argued that there is an improvement in the student-teaching staff relationship.

4. Is there an improvement in the quality of student's learning?

One way to assess students' quality of learning is to focus on the extent they participated in active learning (e.g. class discussion) and higher order learning activities (e.g. thinking analytically and critically). Based on these criteria, there is preliminary evidence from our surveys to suggest that HKUST students' quality of learning is improving. During the period from 2007 to 2009, students reported a higher level of participation in class discussion, doing group projects and doing laboratory work. However, the levels of participation in these learning activities in 2010 have dipped slightly, so more data is needed to confirm the trend.

For engagement in higher order learning activities, students' reported levels of engagement in (1) thinking analytically and critically, (2) synthesizing information from multiple sources, and (3) thinking creatively have seen some slight but statistically significant increase in the period from

to 2010. This can be seen as preliminary evidence that students' engagement in higher order learning activities is increasing.

5. How do students find their overseas exchange and internship experiences?

Students are generally quite positive about these experiences. The survey in 2010 showed that most of the students who have participated in overseas exchange and internship considered such experience to be one of the three most beneficial events in their 3 years of University education.

6. How much do UG students value their university education?

Most final year UG students in 2009 rated the value of the knowledge they learned from their majors positively. Most of them said when they first came to UST they planned to spend at least half of their time in academic study. Interestingly a separate survey showed that the percentage of freshmen in the same year (2008-2009) having the same view is much higher. We have yet to see what their view is about their university education when we survey them again in 2012 when they graduate.

If you are interested in knowing more about the findings of the studies, please contact CELT at ctir@ust.hk.

Research Postgraduate (RPG) Professional Development Program at HKUST 2010-2011

To be a successful researcher, not only does one need to be proficient in a specific area of academic knowledge but also capable in a range of personal and professional skills. The RPG Professional development Program at UST aims at providing training and support for the "whole person" development of research postgraduate students to help them meet these needs.

In addition to the training provided by the orientation and induction program of the Teaching Assistant (TA) program at the beginning of the semester, the RPG professional development program provides further and on-going training for the RPGs throughout the year.

The RPG professional development program is composed of 4 themes:

- Theme 1: Research Knowledge base
- Theme 2: Personal effectiveness in Research
- Theme 3: Research Professional Conduct
- Theme 4: Research Communication Skills

(*This program adapts the Researcher Development Framework (RDF) developed by the Vitae, a national organization for researchers development supported by the U.K. research council.)

Theme 1: Research Knowledge base

The workshop in this theme intends to strengthen RPGs in their research knowledge base supplementing the ones provided by the individual academic programs.

- Thesis Writing Workshop

Theme 2: Personal effectiveness in Research

Personal qualities and professional behaviors and attributes as well as career development skills play a major role in the development of a researcher. The workshops in this theme encourage RPGs to develop personal effectiveness in their lives to enhance their research career development.

Personal Qualities:

- Building Self-confidence
- Work-life balance

Professional and career development skills (courses)

- PDEV 501 "Preparing for an Academic Career" (CELT)
- PDEV 502 "Career Building" (for non-academic career) (SAO)

Answers for questions on P.2: 1. False 2. False 3. True 4. True 5. False

Theme 3: Research Professional Conduct

The workshops in this theme include knowledge and understanding of issues relating to the professional conduct of being a researcher.

- Research Ethics
- Copyright

Theme 4: Research Communication Skills

Communicating effectively with one's academic supervisor, working as a team with other researchers, relating to the broader context involving other colleagues in the field are all important factors in research development. The workshops in this theme aim at helping RPGs to develop effective interpersonal as well as communication skills.

Working with others:

- Managing relationship with your academic supervisor
- SQ workshop

Program Schedule

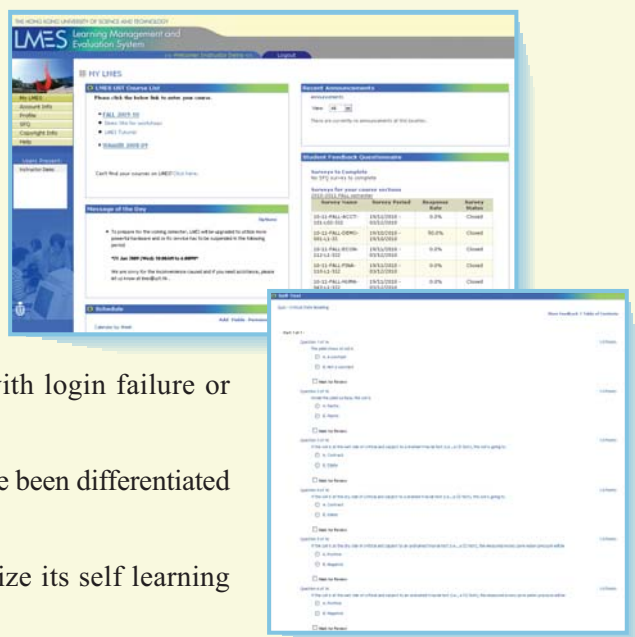
Date	Time	Workshop
Fall Semester 2010		
Sept 15, 2010 (Wed)	4:00-5:30pm	Managing the Relationship with Your Academic Supervisor
Sept 27, 2010 (Mon)	4:00-5:30pm	Writing Up Reports of Experiment
Sept 28, 2010 (Tues)	2:00-3:30pm	Copyright
Oct 27, 2010 (Wed)	4:00-5:30pm	Abstract Writing
Nov 17, 2010 (Wed)	4:00-5:30pm	Work-Life Balance in Research
Spring Semester 2011		
Feb 16, 2011 (Wed)	4:00-5:30pm	Introduction to Thesis Writing
March 9, 2011 (Wed)	4:00-5:30pm	Working with others: SQ workshop
March 23, 2011 (Wed)	4:00-5:30pm	Writing Literature Review
April 8, 2011 (Wed)	4:00-5:30pm	Personal Effectiveness: Self-Confidence in Research
April 20, 2011 (Wed)	4:00-5:30pm	Writing Up Conclusion

Release of LMES 2.5

Release of LMES 2.5

LMES 2.5 (<http://lmes.ust.hk>) will be released for the Spring semester 2011. Performance of the system has been improved and major bugs have been removed. Key improvements include:

- Convenient access to information for students to deal with login failure or missing course sites in LMES.
- Roles of instructors and teaching supporting staff (TSS) have been differentiated as TSS cannot change their role to instructor anymore.
- Tests and Quizzes is now named as **Self-Test** to emphasize its self learning nature.



If you would like to open a course site in LMES, please sign up at <http://celt.ust.hk/lmes/lmesform.html>. For enquiry, please contact us at lmes@ust.hk.

Innovate in your Teaching to Enhance Student Learning

Calling for your Innovative Ideas for Teaching Development Projects

CELT annually invites faculty and teaching staff to propose teaching development projects for their innovative teaching ideas that enhance teaching and learning. With the introduction of the **4-year undergraduate curriculum** in 2012, proposals that involve pioneering new or extensively revised courses will be particularly welcomed; including those that focus on **inquiry-based learning** and **capstone experiences**.

The vetting of the first round of applications for the academic year of 2010/2011 was completed in November 2010. The four successful proposals are:

Learning Embedded System Design through the Anatomy of a Smart Phone and Hands-on Experience of Implementing Real-life Applications (Prof Chi-ying TSUI, ECE)

Development of Mathematics Modules for Enhancing Students' Engineering Problem Solving Skills (Prof Kam Tim WOO, ECE)

Development of Lecture-demonstration Interactive Approach for Solid Mechanics Teaching/Learning (Prof Wenjing YE, MECH)

Development of a New Physics Demonstration Facility and Renovation of General Physics III (Modern Physics) Laboratory (Prof Penger TONG and David MAK, PHYS)

Congratulations to all the successful applicants! Also, thanks for the supports and efforts of the members of the Teaching Development Project Committee and all the applicants.

The second round of applications for the academic year of 2010/2011 has started and will last till March 2011. Please check out more detailed information at <http://celt.ust.hk/tdprojects/callforproposal/website/index.html> and share your innovative teaching ideas with us now!

Creating an Innovative Learning Environment! Yes, you can!

Teaching Innovation Project Sharing

In November and December 2010, two teaching development project leaders, Prof Mike So of ISOM and Prof John Barford of CBME, shared with colleagues the success and challenges of their teaching development projects.

Prof Mike So, project leader of an ongoing project, *Establishing an Assessment Reporting System for Undergraduate Program*, conducted the sharing, *Assessing Students' Generic Skills: Can We Do more than just Using Course Grades* on 18 Nov 2010. In the session, Prof So introduced an idea to develop an assessment report system with a particular focus on generic skills, including communication, critical thinking and information literacy. The system includes investigating students' learning behavior and its relationship with their performance in the mentioned

skills, reporting and giving feedback to students and ongoing follow-up actions. Prof So also discussed how to integrate academic and generic outcomes into curriculum design as well as designing teaching and learning activities in order to prepare for the four-year curriculum.

Prof John Barford, project leader of a completed project, *Development of a New Assessment Method for CBME Laboratory*, shared his experience of the project on 1 Dec 2010. Prof Barford described how he reformed the first laboratory course in chemical engineering. He also shared with participants the problems and management issues faced and the feedback from students and staff.

If you want to know more about the experiences of Prof So and Prof Barford, videos are available at <http://celt.ust.hk/seminar/archive.html> (login with your ITSC account is required).

Reaching out to Students: Letting Students Know What the Outcome-Based Approach Involves

Student Orientation in School of Science

Orientation is always an exciting event for freshmen. At the beginning of the academic year of 2010/2011, the School of Science welcomed its freshmen by adding a green element to the School-based Student Orientation. Apart from learning how to do the course registration, meeting the department heads and undergraduate coordinators, students were also introduced to the outcome-based approach to teaching and learning by the School's OBE Task Force. Representatives from the Task Force delivered a short presentation, "Best Tips for University

Study", in which the concepts of an outcome-based approach were consolidated and students learned about the UST graduate attributes (ABC-LIVE), the intended learning outcomes of their programs and courses.

Students were positive about the information and the School will continue putting effort into reaching out to their students who play a key role in achieving the outcome-based approach to teaching and learning.

What does Assessment Mean to you? Assessment of Learning? Assessment for Learning? Assessment as Learning?

Learning Assessment Workshops with Dr Janice Orrell

Who wouldn't care about assessment? On the first day of the class, students usually like to ask questions about examinations and quizzes. At the same time, teachers would also like to have effective assessments that captures and even promote students' learning. Few would likely argue the significance of assessment. Similarly, few would disagree that designing an assessment is a challenging task.



Under the initiative of integrating an outcome-based approach into teaching and learning, the needs for different kinds of assessments and the adoption of rubric have been progressively gaining attention. In early 2010, CELT invited Dr Janice Orrell, Adjunct Associate Professor of the School of Education at Flinders University and an

international leader in assessment in higher education, to hold a series of workshops on learning assessment. In the workshops, Dr Orrell discussed how to achieve greater efficiency and effectiveness in assessment, how to build, develop and use rubrics from course level to program level, and from

generic outcomes to disciplinary outcomes. She also explained how to create a meaningful learning experience with assessments in order to develop students to be self-regulated deep learners.

You can now retrieve the videos, PowerPoint presentations and handouts of these fruitful workshops at <http://celt.ust.hk/seminar/archive.html> (login with your ITSC account is required).

Outdoor Training for Teaching Assistant Coordinators at Sai Kung

Most of the time, team building events take the form of discussions and seminars, but these can be delivered as interactive and fun activities as well. On 28 March 2010, CELT organized a fun outdoor day for all the teaching assistant coordinators (TACs) who are the senior TAs supporting their peers in teaching. The team has grown stronger and become more united through these outdoor leadership training activities, it was a refreshing experience and everyone felt relaxed and had fun.

The team building activities day took place at the Hong Kong Federation of Youth Groups Jockey Club Sai Kung Outdoor Training Camp in Sai Kung. TACs had the opportunity to learn the practical side of things first hand. There were two main activities, the outdoor orienteering adventure and raft building using large plastic water containers.

The program started at 10am when all the TACs took part in a round of warm-up exercises indoors. The warm-up - tasks offered small groups of TACs a chance to bond with each other and build up the team spirit. About an hour later, the groups enjoyed the popular engaging activity of outdoor orienteering adventure. The activity was a dynamic exercise where participants had to look for objects in hidden locations. All TACs enjoyed the natural splendor of the area while learning the qualities of building a strong team.

After lunch, the TACs gathered at the seaside and learnt raft building. For team bonding purposes, they formed two

teams and worked together to overcome obstacles to find the best way of building a raft with the materials available at hand. The TACs found the activities challenging as they learned conflict resolution, creative brainstorming, better communication and problem solving skills. After the rafts were built, the TACs had to navigate them on the sea to test for reliability and again, teams had to work with their teammates to strategize effectively in a race with the opposing team. Through raft building, there were more opportunities for the TACs to get to know each other in a much more relaxed environment and there was a lot of fun and laughter too.

Team bonding and development can have a huge impact on a team's morale and effectiveness. The outdoor training day at Sai Kung encouraged the TACs to think as a unit and provided individuals with an opportunity to develop a variety of interpersonal skills, including communication, leadership, motivational skills and effective team work.

As teambuilding is an important factor in all aspects of life, its focus on bringing out the best team spirit of teaching assistants to ensure self development and teamwork is highly valued by CELT. TACs found the experience rewarding and the range of activities were highly relevant to developing the qualities of a TAC. The TACs enjoyed the retreat tremendously and found the occasion had allowed them to move past certain barriers. It was a learning experience to treasure for the years to come.



2009/2010 Teaching Assistant Certificate of Achievement Presentation Ceremony

The recipients of the Teaching Assistant Certificate of Achievement for the academic year of 2009-2010 and the award winners of the Best Teaching Assistant Coordinator were recognized in a formal presentation at the Tin Ka Ping Hall on 18 May 2010. Dr David Mole, the Associate Provost (Teaching and Learning) was the guest-of-honor. The ceremony was well attended by postgraduate coordinators, teaching assistants (TAs) and teaching assistant coordinators (TACs) of the four Schools. The ceremony recognized the great strides that TACs and TAs have made in enhancing teaching and learning quality and the advancement of outcome based education at the University.



Daniel Mo, the best TA from the Department of Industrial Engineering & Logistics Management was invited to share his experience. Daniel shared his view that students should be encouraged to do things in groups as these collaborations created opportunities for peer learning. As TAs, it is also important to maximize opportunities for active teaching and learning which offers interaction between teachers and students, as well as amongst the students. This can enhance student learning and help the TAs to be more reflective of their own teaching.

Best TAC Award

At the ceremony, the winner of the Best TAC for this academic year, Kevin Huang from the Department of Electronic & Computer Engineering, also reflected on how face-to-face and e-learning were integrated to maximize student learning. Kevin stressed that being a TA is a great honor and being a TAC involved cultivating important skills for team building and interpersonal skills. TAs need to understand that their teaching should go beyond information transmission. It is the inquiry and learning by the students that matters most in their teaching. Inquiry is not so much seeking the right answer -- because often there is none -- but rather seeking the most appropriate resolutions to questions and issues. Kevin also emphasized that TAs, as representatives of academic departments, should take the responsibility of shaping the impression of teaching at UST. Teaching quality is highly depended on the effectiveness of the TAs, therefore training the skills and continuous improvement of the TAs would be the most important outcomes.

The award and certificates highlighted the excellent practice that is taking place and showed us that through nurturing TAs we are continuously developing the teaching and learning quality of our university.

