Advancing Teaching and Learning with Evaluation

Education is changing dramatically locally and globally. At the University, we are undergoing the development of the new 3-3-4 curriculum and outcome-based education. Both assessment of student learning and evaluation of teaching are impacted in the wave of these education reforms. In the 2009-2010 academic year, CELT is promoting formative evaluation of teaching in the University. In this issue, we will take a look at formative evaluation and see how it rewards your teaching. If you want to know more about formative evaluation of teaching, please don't hesitate to contact our Assistant Director, Dr Tak Ha (cttsha@ust.hk, ext 6812).

Apart from promoting formative evaluation of teaching, CELT continues to encourage innovative assessments for learning among faculty. One of our initiatives is the Innovative Assessment of Learning Outcomes project, which has begun its second year of applications. There are now two rounds of applications in June and Nov.

After the first round of applications in summer 2009, funding was awarded to the following four projects:

- Peer Review of Biology Final Year Projects - A Platform for the Development of Critical Thinking (Prof Karl TSIM and Dr Nina SIOW, BIOL)

- Development of ILO-guided Progressive Self-Assessment Protocols and their Integration into the Web-based "Study Platform for Physical Chemistry" (Prof Xiao-Yuan Li, CHEM)

- Online Virtual Soil Lab (Prof Yu-Hsing WANG, CIVL)

- Development of an Interactive Assessment Platform for General Physics Courses (Prof Nian LIN, PHYS)

Congratulations to all the awardees! The second round of applications closed at the end of November 2009. Results will be announced soon. If you have any ideas for teaching development projects, you are welcome to discuss them with Ms Christine Chow (ctchris; ext 8907).

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Upcoming Events

Date	Event
Jan 13 – 18	New Faculty Orientation
Jan 13 – 22	Professional Development Workshops for Faculty
Jan – 15	Tech Camp — a series of workshops on enhancing your teaching with Web 2.0
Jan 18 and 26	Workshop on LMES
Jan 19 and 27	Workshop on Turnitin
Jan 19 and 28	Workshop on HKUST Survey Tool
Jan 20 – 22	Workshops on Assessment
Jan 25 – 29	TA Induction Program
Jan – Mar	Professional Development Workshops for RPGs
Feb / Mar	OBE Sharing Session
16 – 29 April	eLearning Road Show — Empowering your teaching with eTools
April / May	TA Certificate of Achievement Presentation Ceremony

Making your Teaching more Rewarding

As an instructor, you are probably interested in finding out more on how to make your teaching more enjoyable, rewarding and effective. You may have read materials on teaching, had discussions with your colleagues, or attended workshops or seminars on innovative ways to teach. On top of gaining knowledge on how to teach better, knowing practically what works and what doesn't is the key to a journey of enjoyable teaching. This makes teaching evaluation very valuable and beneficial.

Finding out what works and doesn't in your teaching and ways to improve it is what formative evaluation of teaching (FET) is all about. At HKUST, most of you are familiar with teaching evaluation using the Student Feedback Questionnaire (SFQ) conducted at the end of the semester for quality assurance of teaching. Though SFQ is important for quality assurance, it is not particular useful in helping teachers to improve their teaching since the questionnaire is not customized for the course you teach and it is administered at the end-of-the semester, when it is often rather late to take to take any remedial measure.

In FET, teachers are encouraged to (i) collect feedback and evidence about their teaching and (ii) tackle the problems, if any, *early in the course,* say, around week 4 to 8. This will help teachers to make teaching more effective and rewarding.

Workshops on FET

To promote the use of FET, Emeritus Professor Chris Knapper, who has published extensively on evaluation of teaching, was invited to come to HKUST to deliver a series of training workshops on FET in October 2009.

Below is a brief overview about the workshops, which you can watch online at the Seminar Archive of the CELT website *http://celt.ust.hk/Seminar/archive.html*.

(1) An Introduction to Formative Evaluation of Teaching

In this workshop, Prof Knapper explored with participants the reasons and benefits for engaging with formative evaluation of your teaching. A number of different strategies for evaluation that can lead to improvement of teaching were introduced, including self-assessment, peer evaluation, and using a range of information provided by students.

(2) Formative Evaluation in Practice: Self-peer and student evaluation

As you can guess from the title, Prof Knapper shared with the participants useful practical advice of how to evaluate their teaching that can lead to enhanced effectiveness. He introduced a range of methods, including some off-the-shelf resources which you can use, for assessing your own teaching style and practices, for getting and offering helpful advice from colleagues, and collecting a range of data from students.

(3) Documenting and reflecting on your teaching: Preparing a teaching portfolio

In this workshop, Prof Knapper explored how the various strategies discussed in earlier sessions can be used as a source of reflection about good teaching practice, and can form evidence for a teaching portfolio. Participants developed a statement of teaching philosophy, considered what evidence they might collect to document their teaching achievements, and planned for possible future changes in their teaching approach.

FET Resources on the CELT website

In addition to the video recordings of the FET workshops, the new CELT website, which will be launched in Feb 2010, will also contain additional materials about FET, including some quick and easy ways to carry out FET, suggestions for a systematic approach to FET, and an annotated bibliography on FET.

HKUST Survey Tool

A commonly used method to collect feedback from students for FET purposes is to use questionnaire surveys. A new user-friendly online survey system, **HKUST Survey Tool** (http://assetss.ust.hk), has been installed and made available to teaching and teaching support staff at HKUST. To start building your survey, you just simply go to the website and log in using your ITSC account.

Key features of the system include:

- Creation of surveys to collect data online.

- Both anonymous surveys (no login required) and surveys requiring login using ITSC account are supported.

- Easy access to section enrolment lists within the system by instructors.

- Support for a variety of question formats including multiple-choice - multiple answers, multiple-choice - with single answer, true/false, open-ended questions, etc.

- Libraries from which you can pick and choose questions to use in your surveys

- Automatic generation of survey reports.

- Conditional display of a page — support the conditional display of a page based on a pre-defined condition, e.g. respondent's answer to a previous question.
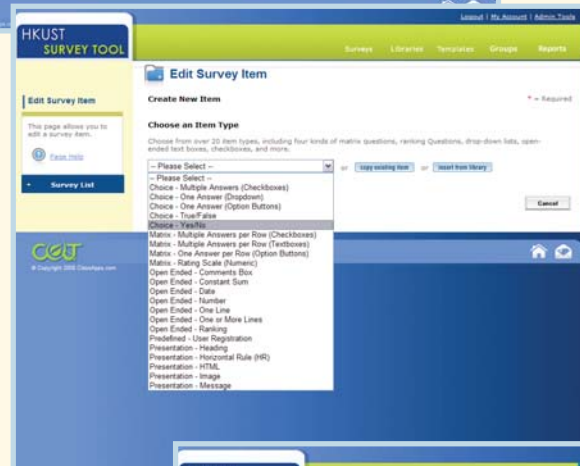
Workshops for the pedagogical use of the tool will be conducted in January 2010. All teaching staff are welcome. If you need assistance in using the tool, please contact Ms Joyce Cheung (ctjoyce; ext 8022).
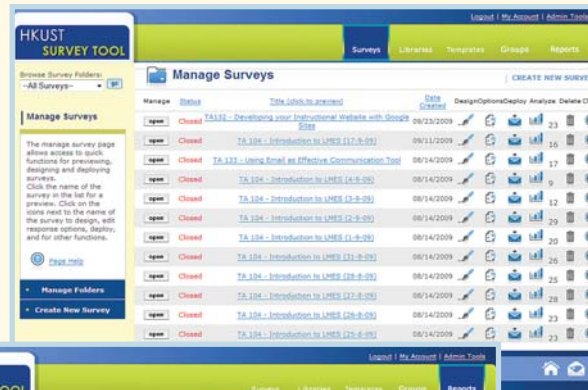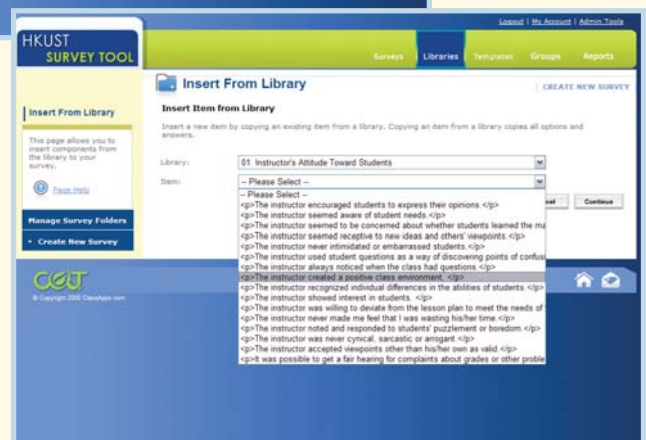

One-stop administrative interface for managing surveys
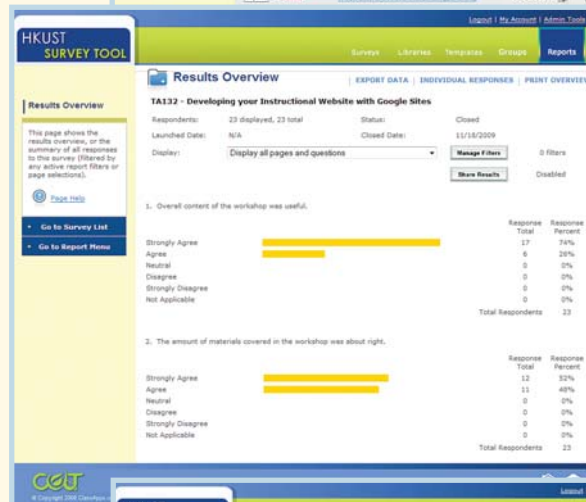
System generated statistical report, individual responses and raw data export are available

Support for a variety of question formats

Sample question items are available from Libraries

Promoting Originality to your Students

Promoting originality and creating assignments where plagiarism is 'designed out', or at least minimized, has always been an issue in education. However, the rapid growth of information on the internet and other online sources has compounded this and made it more complex. If assignments are not carefully designed, then students are likely to create 'patchwork' assignments using various online sources, like Wikipedia, Google and online journals, without proper citation and personal analysis and insight. This is obviously not a learning behavior but a sourcing information one. As a teacher, how can we facilitate students move from 'sourcing' to producing original work that reflects what they have learnt? Is it just as simple as deducting their final grade or kicking them out the University?

The academic integrity website *http://www.ust.hk/vpaao/integrity/index.html* of Office for the Vice-President for Academic Affairs (VPAAO), and a similar one for new students at *http://www.ust.hk/orientation/studies/academic.html*, provide information about academic integrity at HKUST, tips for avoiding plagiarism and suggestions on how to handle academic dishonesty. According to the policy outlined there, "plagiarism is presenting work which is not your own and originates from other sources as if it is your own" and for some cases, it is "a kind of fraud". After having a common understanding of plagiarism, you then have to move forward to detect, prevent and follow up with plagiarism.

Seminars on promoting originality

In November 2009, Jude Carroll returned to the University to follow-up on her designing out plagiarism seminar in December 2008 (video, PowerPoint presentation and handouts are available at *http://celt.ust.hk/seminar/archive.html*). She delivered four interactive seminars to discuss how teachers can promote originality and reduce plagiarism by facilitating student learning through the use of the originality detection software, Turnitin, which will be launched at the University in Spring 2010.

Jude Carroll is a Principle Lecture at Oxford Brookes University in the UK. She has worked on plagiarism around the world since 2000, helping students, teachers and whole institutions address the issue. In the seminars, she analyzed common plagiarism phenomena and categorized them into misunderstanding, misuse and misconduct. She then discussed each of these in turn with the audience and suggested how plagiarism can be minimized and learning can be facilitated with Turnitin. She emphasized that Turnitin is an 'assistant' that cannot judge. Teachers have to make appropriate professional judgments from the Turnitin reports and then provide students help or take remedial measures if needed. Jude's interactive presentation and rich experience were highly appreciated by the audience. Here is some of the feedback:

- (I value most) the clarity of the presentation and the exercises over recognizing and avoiding plagiarism.

- (The seminar provided) inspiring perspectives to look at Turnitin.

- It is useful to my teaching.

- (After the seminar, I am now) very clear about the motivation and positioning of the software.
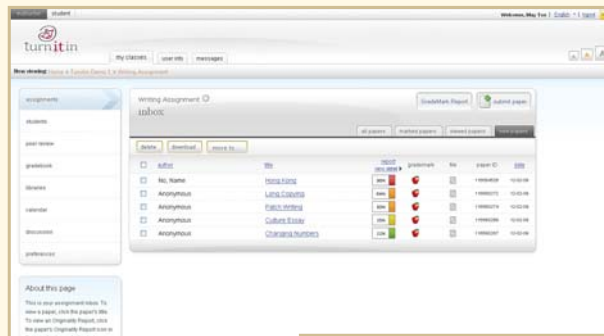
If you are interested in the interactive seminars, you may go to the Seminar Archive *http://celt.ust.hk/seminar/archive.html* of the CELT website to retrieve the videos and PowerPoint presentations and further session are being arranged for Jan 2010 (see below).
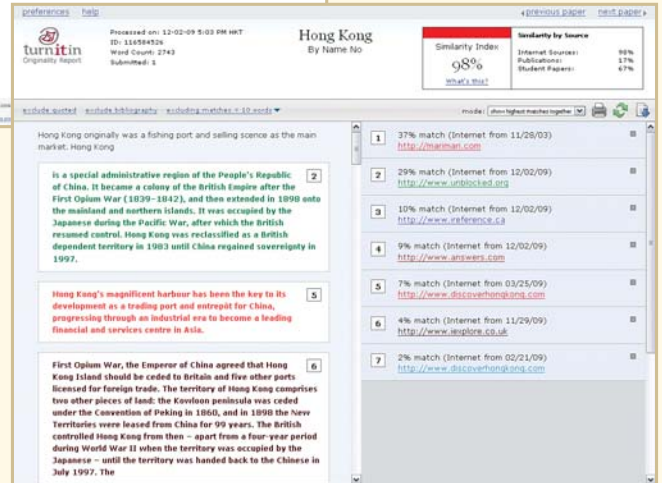
Turnitin — a tool for minimizing plagiarism

Turnitin is a text-matching software that helps you check the originality of students' writings and minimize plagiarism. According the website of Turnitin (*http://turnitin.com*), as of October 2009, Turnitin covers over 11 billion pages of web contents and articles and 100 million student papers. After students submit their written assignments to Turnitin, the system will match the textual contents with its database. An originality report will then be generated for teachers to follow up with students if needed. Teachers are advised not to totally rely on the percentage given by the reports. One of the reasons is that the database of Turnitin is huge but limited. For example, books, graphics and translated text are excluded. Teachers should look at the details of the reports and then make proper judgment.

Beyond checking the originality of student' work, Turnitin is promoting a process writing cycle that enhances students' writing skills and thus stay away from plagiarism. The cycle includes originality checking, online grading and providing feedback and peer review.

The software is being piloted at the University in fall 2009 and will be fully available in the coming spring semester. Workshops for the pedagogical use of Turnitin will be conducted in January 2010. All teaching staff are welcome. If you are interested in using Turnitin for your teaching, please contact Ms Christine Chow (ctchris; ext 8907) who will plan and prepare together with you.

Summary of the whole class

Individual originality report

Writing up assignments

Checking originality with Turnitin

Getting feedback from teachers and peers
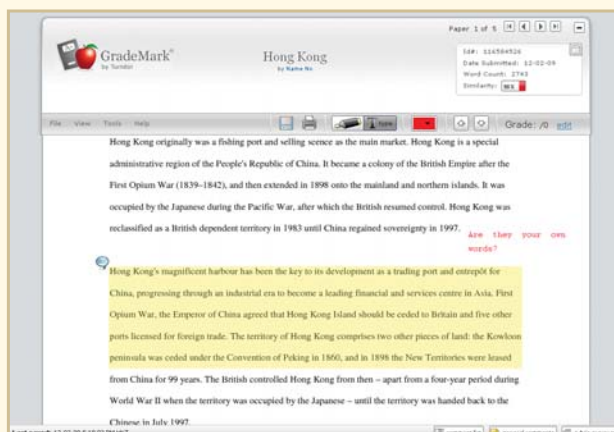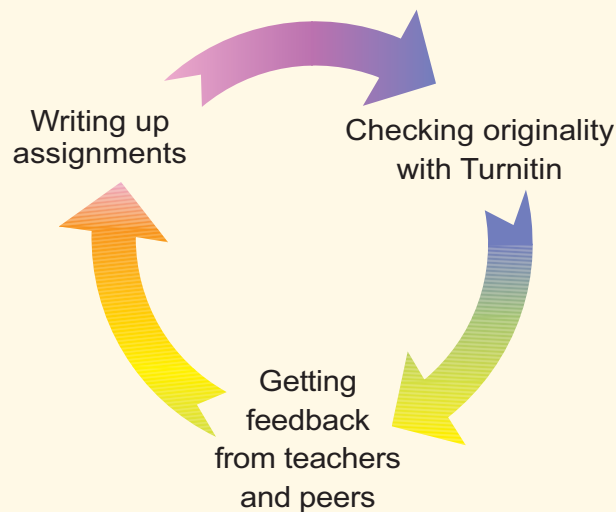
Grading and giving feedback to students

Fall 2009 Teaching Assistant Orientation and Induction Program - a new approach!

At UST, Graduated Teaching Assistants (GTAs) have an important role to play in the overall teaching effort. To assist new GTAs in taking up their work and duties effectively and efficiently, CELT provides a series of induction trainings and support programs every academic year. The GTA program is comprised with five components the Mass Orientation, Briefing Session, Feedback Session, Induction Workshops and Competency Enhancement Workshops. Responding to the needs of the GTAs and departments, contents of the workshops have been modified from time to time.

This year, The Fall 2009 Teaching Assistant Orientation and Induction Program was held from 25 August to 4 September. The aims of the program were to help new GTAs know about their duties and learn the fundamental teaching and learning skills with three main foci, (i) Knowing about Teaching Assistantship in UST; (ii) Teaching and Learning; and (iii) Teaching Aid. Hence, the structure of the program was adjusted in order to introduce more pedagogical inputs, such as classroom management and interactive teaching skills to the GTAs. Topics related to their personal development, like time management, were also introduced.

In order to complete the program, each new GTA is required to attend at least a total of 14 hours of the training, including 12.5 hours from the core sessions, which are related to teaching assistantship and teaching and learning, and at least 1.5 hours from the elective sessions, which further equip them with knowledge about teaching and learning as well as different teaching aids. After completing the program, a Certificate of Achievement would be awarded to GTAs by the end of the academic year.

If you want to know more about the TA Orientation and Induction Program, please visit our webpage at *http://celt.ust.hk/ta/tahome04.htm*.

Professional Development for RPGs - Workshop on Teambuilding

As part of the professional development for the GTAs and Research Postgraduates (RPGs), CELT and five academic departments, BIOL, PHYS, CBME, CIVL and SOSC, co-organized a workshop on team building and leadership skills in mid November 2009. We commissioned Sports & Eco-Education Development Ltd (SEED), a service organization specializing in various types of educational and recreational activities, to deliver the training.

An action approach was adopted to engage the participants in team games highlighting different aspects of team work and leadership skills. After warming up, participants were divided into two groups to complete a list of tasks. Every group member was required to cooperate and collaborate to accomplish four tasks, Toxic Waste, Pipeline, All Aboard and Keypunch, on different campus locations.

Brief Description of Team Building Games		
Activity	Description	Purpose
Pipeline	Each group member equipped with a section of pipeline. They work together to transport a small spherical object along a pipeline, formed by group members up and down the slope to the destination	To improve group problem solving and communication skills
Toxic Waste	Group members are provided with bungee cord and ropes. They need to derive tactics to transport pieces of "Toxic Waste" and tip them into a neutralization bucket	To increase the awareness of basic teambuilding and leadership skills
All Aboard	All group members are required to stand on a platform of successively decreasing sizes in repeated trials	To learn of group communication, cooperation, problem solving skills and patience
Key Punch	Members are required to touch a sequence of buttons placed in a confined area in a specific order. Groups are required to derive strategy to improve the performance in repeated attempts	To learn how to work together and communicate in group settings and to improve performance

Source: SEED and Wilderdom Store

After completing the tasks, teams got back together for the debriefing session in which participants were guided to reflect on their performance regarding team building and leadership. The action approach was well received by the participants who are from different cultural and academic backgrounds. Apart from learning essential skills for their professional development, participants also mingled with each other in such a fun and fruitful occasion. Learning, reflection, excitement and laughter nested together to make the training a great success.

Outcome-based education - Looking back, Looking forward

At the request of UGC, all universities have been strongly encouraged to develop a 4-year university education experience for the 21st century based on the framework of outcome-based education (OBE) for enhancing student learning. OBE is about specifying and explicitly stating what we expect students can 'do' as a result of the learning experiences they are asked to engage in. These expectations of ability are called Intended Learning Outcomes (ILOs). Learning activities and assessments are subsequently designed in ways that assist students in achieving those ILOs. ILOs, learning activities and assessments have to be 'constructively aligned' to make the learning process more coherent and effective.

HKUST's OBE journey so far

Since 2007, different OBE committees have formed at different levels, from graduate attributes at the institution level, to intended learning outcomes at the School and programs levels. In fall 2008, the University started planning to implement OBE in courses; and the implementation began in the spring semester of 2009. To date, the OBE course pilot project has engaged over a hundred teaching staff. These teachers have shared their experiences of what is involved for teaching staff and students in different teaching and learning contexts. Good practices have also been highlighted and implications for scaling up have been discussed. Feedback has also been collected from students involved in these courses. Both teacher and student feedback is positive overall with generally a recognition of the merit of the OBE approach that helped them reflect on their teaching and stay more focus on the key elements of learning. Trialing the implementation of OBE in courses in this progressive way allows us to plan better for the new curriculum as 2012 approaches.

Next Steps

The focus is now moving to assessment. Through the course pilot project, we have learned that a wider variety of assessment techniques are needed in courses, especially for the generic outcomes, like teamwork and leadership skills, communication skills and civic responsibility. Some faculty have designed a greater variety of learning activities and assessments including simulations, group projects, peer evaluation, presentations, etc. Still, there is room for more alternatives.

Although, course level assessment is a major component of assessing student learning in a program, it by no means captures all the learning that is on offer within a program and within the students' university experience as a whole. In order to ascertain the extent of our success in helping students achieve the intended learning outcomes, an Assessment Plan Project has been initiated to look for possible and practical assessment methods as recommendations for the whole institution. Each School and the academic support units, including the Language Center, the Student Affairs Office and the Library, will be responsible for one generic outcome of HKUST's graduate attributes — ABC LIVE. Each department is also responsible for one program-level assessment, which is typically critical thinking. Currently, some Schools are running mini-projects, conducting surveys with students and trying out a few international and local standardized tests. Some departments are comparing different models of critical thinking and corresponding examples of assessment rubrics from other universities, discussing criteria and standards of achievement, and identifying suitable courses or samples of students' work for program-level assessment. Both development and implementation will likely be challenging. Every unit is putting in their effort and will share their findings and experience in a sharing session during the coming spring semester.

For further information about the OBE initiative, please visit the CELT OBE website at *http://celt.ust.hk/obe/*.

> **Key OBE events for spring 2010**
>
> - Sharing session for Pilot Assessment Plan
> - 3rd Round of the Pilot Course Project