

CELT NEWSLETTER

Center for Enhanced Learning and Teaching

Fall 2006

Appointment of New Director - Mr Nick Noakes



Starting 1 July 2006, Mr Nick Noakes has taken over as the Director of CELT.

Nick joined HKUST in 1994 and has been in CELT since 2001. In July 2003, he took up the post of Associate Director.

Nick's main area of research interest is teaching and learning practices around emerging technologies in higher education.

Farewell Dr Grace Au



Dr Grace Au left HKUST at the end of June 2006 on the Voluntary Redundancy Scheme.

Dr Au was the first Director of CELT and led the center for nearly seven years from its founding in May 1999.

We want to take this opportunity to thank Dr Au for the contributions she has made not only to CELT but to the university. We wish her all of the best in her new commitment and hope to see her around in the future!

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3-3-4, Learning Outcomes and Assessment

These are both exciting and challenging times for universities in Hong Kong. With the 4-year undergraduate curriculum on the horizon, the UGC, continuing its focus from the last Teaching and Learning Quality Process Review (TLQPR) on learning outcomes and assessment, is strongly encouraging universities to use this curriculum development opportunity to embed outcomes-based education into all courses and programs. Hence, the theme for this issue of the CELT newsletter is learning outcomes and assessment of learning. As teachers, we have all produced course objectives as part of the syllabus for our students. Course objectives are typically the teacher's view and focus more on content areas. Learning outcomes ask us to take the learner's perspective and describe the level of knowledge, and the level of skill performance, we would expect the students to achieve on completion. Typically, syllabus and program documents contain both course objectives and learning outcomes.

For example, in a finance course that covered the knowledge and skill areas of financial statement analysis, risk and return, the time value of money and asset valuation one learning outcome could be "Students will demonstrate learning by carrying out financial decision-making based on a cost/benefit analysis involving the time value of money, risk and return factors, and asset valuation." In a computer science course covering operating systems and the knowledge and skill areas of system deadlocks, the Banker's algorithm and preventing system deadlocks, we might have a learning outcome stating "Students will demonstrate learning by recognizing system deadlocks and applying the Banker's algorithm to prevent them."

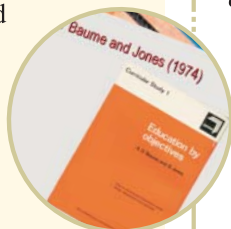
Producing learning outcomes help us to clearly articulate to our students what they will be gaining from their courses and from their undergraduate program as a whole and has been shown to improve student learning (ABET, Engineering Change: A Study of the Impact of EC2000, 2006). Developing these statements of student learning helps teachers in creating assessments that demonstrate student learning. With an increasing diversity in our student population, this is a needed and helpful approach to course design and review.

Please check the Disciplinary Resources section of this newsletter for links to the theme in your field.

Outcome-Based Approach to Teaching and Learning

Introduction: Outcome-Based Learning as an International Trend

The outcome-based approach to teaching, learning and assessment is making a significant impact on higher education curriculum in many countries, such as the US, the UK, Australian New Zealand and many European countries.



In Hong Kong, the University Grants Committee (UGC) has started to promote the approach to student learning in the higher education sector. Local universities are encouraged to adopt the approach in their curricula.

Implications: What Might Be a Possible Direction for Us?

According to the "Education Quality Work: The Hong Kong Experience" handbook (published in 2005), professional bodies should require professional courses to demonstrate achievement of intended learning outcomes.

Goal and intended changes

The goal of the strategic action is to revise our academic programmes to become outcome-oriented programmes for the development of all-round students with professional competence.

Specifically, this necessitates the following categories of changes:

1. Adjusting programme components to fit new credit requirements.
2. Adopting an outcome-oriented model to curriculum design.

Key ideas in Outcome-Based Education - by Dr David Baume (PhD FSEDA, in a speech given on 15 Dec, 05, at HK Polytechnic University)

1. Learning is best achieved when learning outcomes, teaching and learning methods, content and assessment are in 'constructive alignment'.
2. Learning flows from appropriate student activity. This student activity must be suitably planned towards the learning outcomes, and then reflected upon.
3. Learning is a complex and vital skill, a skill for life. As we teach we should give explicit attention to learning itself as well as to what will be learned.
4. Learning is a spiral process. That which has been learned must be revisited and questioned for a higher level of learning to be achieved.

3. Clear articulation of intended learning outcomes and designing teaching and assessment methods which align with intended outcomes.
4. Integration of Strategic Objective 1 [relating to the development of students' generic competences] into the formal curriculum.
5. Formalization of work-integration education (WIE) requirements for all undergraduate programmes. <p99>

Implementation: Some Suggestions

According to the handbook, writing appropriate learning outcomes is one of the "Goal and Intended Changes". Some guidelines and examples have been collected here and we hope they will shed some lights on your planning for coming teaching.

Tips for Writing Learning Outcomes

The "*First Words on Writing Aims and Learning Outcomes*" of the Oxford Centre for Staff and Learning Development at the Oxford Brookes University suggests that:

- The learning outcome of a course or module should be consistent with its aims. When you have drafted your learning outcomes, ask yourself: *if someone successfully completes the module by showing that they have achieved all the learning outcomes, would I feel that the course or module had achieved its aims?*
- To reduce ambiguity when writing learning outcomes, consider selecting active words such as *solve, construct, draw, select, list, identify, assemble, pronounce, write, recite, specify, describe, distinguish between, analyze, translate, and evaluate.*
- The assessment must be consistent with the learning outcomes. The assessment should test some or all the learning outcomes for the module, it should not test skills that are not described in the learning outcomes.

For more information please visit their website at

<http://www.brookes.ac.uk/services/ocsd/firstwords/fw32.html>

Also, visit "CyberCampus Objectives Builder" at

<http://www.radiojames.com/work/ObjectivesBuilder/StartPage.html>



Here are some example learning outcomes from the "*UCE Guide to Learning Outcomes*" of Staff & Student Development Department at the University of Central England in Birmingham:

On successful completion of the module, students will be able to:

- **Knowledge & understanding:** explain the meaning, character and identity of place, and how landscape is constructed.
- **Intellectual (thinking) skills ~ application:** illustrate, using phonetics, the problem of stigmatism in children.
- **Intellectual (thinking) skills ~ analysis:** appraise the key issues of market segmentation in a brewing industry case study.

- **Intellectual (thinking) skills ~ synthesis:** create a set of criteria to assess Home Office implementation of immigration rules.
- **Intellectual (thinking) skills ~ evaluation:** explain the reasoning behind their allocation of scarce resources in the treatment of patients in an Accident and Emergency setting.
- **Practical skills (=subject-specific):** express themselves in writing for different professional and academic audiences.
- **Key/transferable skills (=generic):** work effectively as part of a team.

For more examples and information, please visit their website at www.ssdd.uce.ac.uk/outcomes/outcomesprint.htm

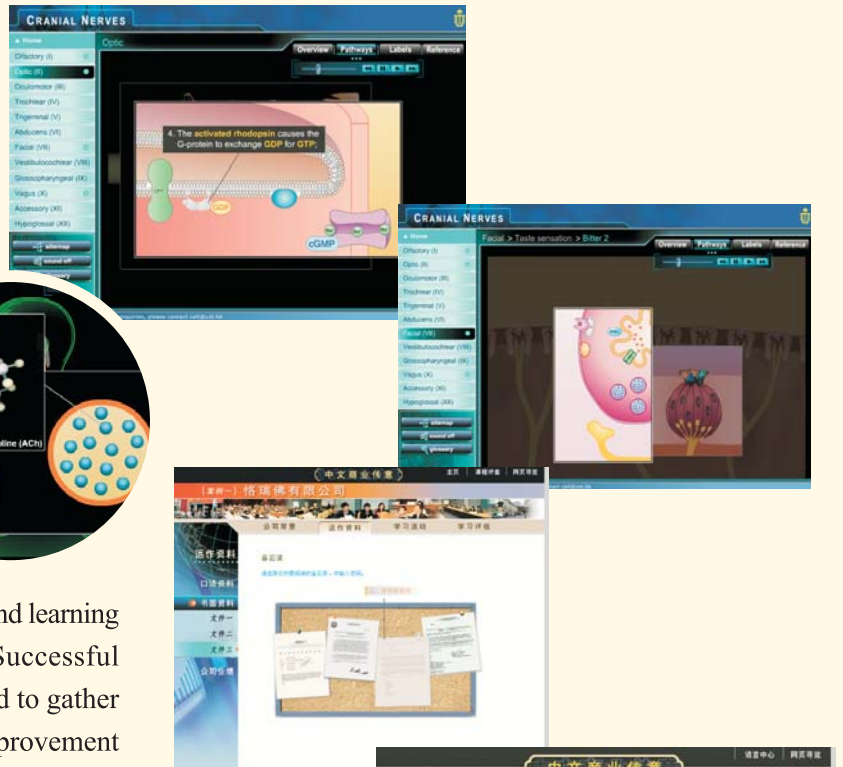
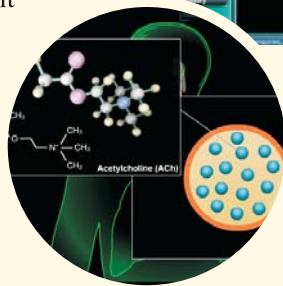
"If you don't know where you're going, any bus will do!" When designing your courses or modules, remember to ask yourself where do I want to go and where do I want my students to get to? Clear learning outcomes will help the rest of your planning and teaching, whether it is sequencing learning activities, developing teaching and learning strategies, designing content or assessment methods.

CLI Student Learning Improvement

Funding for teaching development under the CLI project enters its fifth year

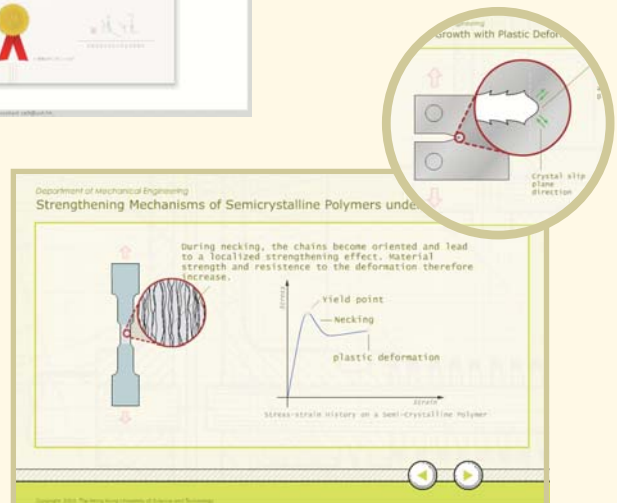
Tuning in Outcome-Based Learning

Is improving student learning one of your pursuits? Don't miss the 5th round call for proposal of the Continuous Learning and Improvement (CLI) through teaching innovation as the theme is "Student Learning Improvement"! The current focus is in fact going along with the UGC initiative in advocating outcome-based learning approach. According to the Secretary General of UGC, the goal of outcome-based learning approach is to "improve the quality of teaching and learning and give the students what they deserve". Successful applicants for the current round are encouraged to gather and showcase the solid evidence of student improvement in learning for evaluation.



Setting Milestones

Looking back, the first phase (Rounds 1-3) of the CLI project started with the vision to encourage faculty and instructors to put innovative ideas into teaching. Seeing the success of cultivating a collaborative and innovative teaching and learning environment, the CLI project carried on to the second phase (Rounds 4-6), from July 2005 to June 2008. The focus of the current phase is to encourage program and departmental level innovations as this will have more long-lasting institutional impact and wider curriculum implications. Presently, of all the 64 existing CLI teaching innovations, including 43 full sub-projects and 21 adaptations, 42 of them have been completed.



CLI Success

Ever since the CLI initiative, more than one-sixth of the teaching staff in HKUST have been involved in the projects. There are also many deliverables through the successful teaching innovations over the years such as a voice-based online discussion system called GONG, a system to assist instructors to provide meaningful feedback to students' work called MarkMyWords, a secure online assessment system called SOAS, cyber classroom system, animations to help students to learn cranial nerves, online course modules, a cell calculator and a simulated interactive online business environment (virtual office) for developing business communication skills.

The accomplishment of CLI has been substantiated by the external evaluator, Professor Christopher Knapper from Queen's University, Canada. After a comprehensive review of CLI, Professor Knapper concluded that "CLI was successful in engaging a substantial number of staff in teaching innovation, including some for the first time, and in encouraging many fruitful collaborations, especially through the sub-project adaptations." At the same time, the role CELT played in the project management has also been commended as "exemplary".

The Way Forward

CLI will continue to promote teaching innovation and learning quality on campus with the aim to foster a collaborative teaching community among faculty and instructors. CELT as in the past will provide support to faculty and instructors with project administration, instructional development, application development and project evaluation.

Screen Shots on Using a Board in the Gong Free Edition
These screen shots show the Gong system while the user is using a discussion board in the free edition. You can click on the thumbnails to see the actual size of the pictures.

The Gong Project
Personal Messaging
A personal message is a text message that can be sent to a person on the same board. It is a private message which means nobody can read it except the recipient of the message. It can be written in any language.
Personal messages are used for quick and short messages. They are not stored anywhere in the system and therefore all messages will be lost once the person quits the system. Similar to the use of email, you can send a message to one recipient or multiple recipients. However, it can only be sent to the users who have logged on the same discussion board in the system. You can look at the content of your inbox and outbox. One difference between personal message and email is that personal messages are not stored in the system while emails are stored in the email server.
For example, in the image below, a message is being sent to a recipient called Dave. The content of the message is "Good morning!" and the color of the message is red.
Once the message is sent the system will notify Dave with a "ding" notification sound. He can then open up his inbox and read the message just received. The following image shows the inbox of Dave after he received the personal message from Gleason.

SOAS
Secure Online Assessment System
SOAS is an online system which allows instructors to assess students in a secure environment. What makes learning management systems (LMS) like Moodle do not support formal assessment. The system compares an item bank and a list of questions to create online tests using questions from the item bank. In this context, item refers to assessment questions. Besides using the system to create tests, you can also create a manual assessment with questions generated with the system. Once the system has generated the questions, you will be able to access the item bank, you can then create or print the test items. Answers submitted by students will be processed by the assessment module.

AP Corporate Training
The best investment your company can make is to help your staff at all levels to bring out their best. Since 1997, AP Corporate Training has been working with some of the most successful organizations, both local and international, to empower their staff and accelerate their organizational growth. Based on our renowned 4-1-1 approach, each program is designed with an optimal balance of knowledge, application of theory, assessed skills in real-life simulations and demonstration of skills to the participant's work situations. Our programs and services have been consistently rated as the best they've ever had by clients.

Vertex
Vertex is the leading provider of corporate/business coach training programs and coaching services.
We are committed to enhancing business performance by providing organizations with exceptionally well-trained business coaches who know how to raise the level of individual and team performance.

Round Call for Proposals
Teaching and Learning Innovation Projects

Fifth Round Call for Proposals:

CLI, a teaching development initiative is in its fifth round now. Interested faculty and instructors are welcome to submit their proposals from 1 July - 30 Sept 2006.

Disciplinary Resources Highlights

The "Disciplinary Resources" section is now expanded! You'll be able to find resources for Outcome-Based Learning. Go to "UST Faculty Toolbox" on the CELT website (<http://celt.ust.hk/>) to pay a visit. Here are the highlights from each School:



School of Engineering (General)

Field-tested Learning Assessment Guide

To adopt the outcome-based approach, some thoughts are required on aligning learning outcomes and course contents. This site contains rich resources on classroom assessment techniques for Engineering as well as other disciplines. In particular, it contains an assessment "primer", a section to help you select the most appropriate assessment technique(s) for your course goals.

URL: <http://www.flaguide.org/>



School of Business and Management (General)

Learning Outcomes

On this specific webpage, the *BEST story* tells how the use of resource-based learning can support students in achieving learning outcomes. Whereas, the conference paper *e-learning Hub: Affordance, motivation and learning outcomes* examines the impact of e-learning on learning outcomes. The other two links contain abstracts describing the interplay of learning outcomes and student learning.



URL: <http://www.business.heacademy.ac.uk/resources/landt/learning/outcomes>

School of Science (General)

Formative Assessment in Science Teaching

The Open University and Sheffield Hallam University hosts this project website "to examine how students' formative assessment experiences affect their learning." Interviewing tools used could be located at *Tools to Evaluate Assessment*. The *Publications and Dissemination* contains the project deliverables that share how teaching and learning could be enhanced through a feedback system.



URL: <http://www.open.ac.uk/science/fdtl/>

School of Humanities and Social Science (Humanities)

University History

A new website devoted to top quality digital links for teachers and students. The aim of the website is 'to provide a single web portal where people involved in history as a discipline can be sure they'll find the best online material available'.



URL: <http://www.universityhistory.org/>

TA's Corner

2005-06 Teaching Assistant (TA) Training Program



Over 300 Year-1 Teaching Assistants (TAs) participated in the TA Training Program for the 2005-06 academic year and have received their certificate of completion from Dr Mole, AVPAA during the TA's Certificate of Achievement Award Ceremony held on 3 May 2006. According to the TA Program Opinion Survey which was conducted during the departmental feedback sections held from November to December 2005 with an overall response rate of 95%, the majority (80%) of TAs found the training program appropriate and useful and 68% rated the overall TA program effective. The most applicable training workshops to them are 'Marking & Grading', 'Conducting Tutorials' and 'Departmental Briefing Sessions'.



Dr Mole (5th from left rear row) pictured with some of the TAs participated in the ceremony.



Best TAC Award

This year, two Teaching Assistant Coordinators, Daniel Wu from SBM (voted by TAC Committee) and Linna Tu from BIOL (voted by TAs) received the Best TAC Award and both won a round-trip plane ticket to Beijing sponsored by Cathay Pacific Airways.



Useful Tips

To help you better perform your role as a bridge between instructors and students, here are some tips from your experienced peers:

- Keep close contact with the instructors and the students
- Set up regular (e.g. weekly) meetings with the instructors
- Maintain an active communication with the students through different means, e.g. f2f tutorial meeting, email, etc.
- During tutorials, always leave some time for students to ask questions to make sure they understand the content
- Collect the students' questions or concerns about any problems or issues they encounter
- Encourage students to give feedback during and after tutorials and discuss them with the instructors during regular meetings
- Talk with experienced TAs, especially those who were TAs for the same course, to learn how to deal with different situations

Mini Tech Camp

Following on from the well-received Tech Camp 1, the first Mini Tech Camp was held on two afternoons in April and two more afternoons in May 2006. With the theme, Go Edventure!, the Mini Tech Camp aimed at enhancing teaching staff's information and communication technology (ICT) skills in a fun and exciting environment.

This time, the camp focused on developing teaching staff's skills for creating interactive presentations and instructional websites with MS PowerPoint and MS Frontpage, so that after the camp, participants can enrich their instruction with their enhanced ICT skills.

What participants think about Mini Tech Camp?

- "A very helpful course with an excellent handout that I'm sure I will refer to often. This was my first CELT workshop and I really enjoyed it and will definitely sign up for more!"
- "Well done! Enjoyable."
- "They (the exercises) allow me to try out things at my own pace. They are very well planned and really useful in helping me get familiar with the programme."
- "Excellent workshop. Nice snacks. Well done!"
- "Good beginners' experience."



Recent Events Highlights

- **TA Induction Programme:** Fall 2006 TA Induction Program will be held from 25 to 31 Aug 2006. For details, please go to <http://celt.ust.hk/ta/index.html>
- **Faculty Orientation and CLI Briefing:** 1 Sept 2006 (Fri). 2:30pm. 7th Floor Foyer.
- **CLI Fifth Round Call for Proposals:** Submission deadline -- 30 Sept 2006