

# LEARNING & TEACHING NEWSLETTER

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COLLEGE OF HEALTH SCIENCE • VOLUME ONE, ISSUE TWO • AUGUST 2009



Dr Betty Gill — Associate Dean Academic,  
College of Health & Science.

## Message from the Associate Dean Academic

Welcome to the 2nd issue of our CHS Learning & Teaching Newsletter – another interesting read to fill all those ‘what can I do now’ moments. Yes I am kidding! But seriously, our intrepid editor (Gu Fang) has put together another interesting collection of articles which enable us to recognize and celebrate the achievements of colleagues; share useful tips to inform our teaching practice and the opportunity to share information about the many exciting things happening in L&T practice and scholarship across the College. If you would like to share your experiences, tips and innovations, or research ideas or activities we would love to hear from you. Just contact Gu at [g.fang@uws.edu.au](mailto:g.fang@uws.edu.au)

## First Year Experience Program

**By Dr Betty Gill – Associate Dean  
Academic, College of Health & Science**

A successful First Year Experience Course Planning Workshop was held on Friday 17 July to review implementation of the First Year Transition/Retention Program implemented this year across and plan for an enhanced 2010 program. We were joined by Professor Sally Kift from QUT, an acknowledged FYE expert and ALTC Fellow

In the 2009 SS Survey a significantly higher percentage of CHS students ( $p=0.003$ ) rated their course information sessions useful or very useful than did COA or COB students.

who shared insights and experiences with us and assisted us in refining our approach.

All undergraduate HOPs attended the workshop and importantly, provided unanimous endorsement for the project. This included the following agreed outcomes:

### Orientation:

- » Coordinated and standardised (though not prescriptive) approach to student orientation across all CHS courses, including participation by current students;
- » Extension of orientation/transition information within identified core units in all courses;
- » Continuation of the 1st Year School Admin Contact Officer role

### Curriculum issues:

- » All courses will have integrated, coherent and achievable assessment load across 1st year; common and agreed criteria and performance expectations across 1st Year teaching teams; attempt to find opportunities for linked assessment across units;
- » All course will have explicit, embedded academic skills development within core;
- » All courses will include an early (low stake) ‘formative’ assessment item within the first 2 or 3 weeks with rapid feedback to help relieve student anxiety; provide feedback to staff and students on student progress and identify students in need of support.

Planning for and communication of the new project plan, including strategies for achieving the above agreed outcomes is underway with participation from all schools and other divisions. This group will also be developing strategies to address the two major challenges identified on the day as most needing attention, namely: **the support and integration of sessional staff – unanimously agreed as the most pressing challenge; and a process for sharing resources and ideas across the College.** The outstanding motivation and enthusiasm shown by all participants on the day fills me with confidence that CHS will continue to lead the University in this important strategic initiative.

For those who weren't at the workshop remember there are three key messages:

- » It's the total experience which counts;
- » Transition has a personal and social dimension, along with skills and knowledge;
- » FYE is everyone's business and everyone has a role to play – so please stay tuned!

# How good is your exam paper?

By Professor Ian Wilson – School of Medicine

You have written the exam paper, marked the papers and collated the results and everything has been approved by the College Assessment Sub-committee. Time to relax before starting to think about next semester? No, it is time to analyse your paper to see how it performed. This will help you improve your papers in the future and to improve the quality of each question.

There are a number of different methods of assessing the quality of papers. Some are very complex (Rasch analysis or generalisability) but there are some very powerful techniques which anyone with access to a spreadsheet or SPSS or similar can do. This paper outlines a simple approach to analysing your paper(s) and questions.

## The paper as a whole

As a first step print out a histogram of your results (Figure 1).

Is it a nice bell shaped curve or is it skewed or bimodal? If it is not a normal curve then you need to investigate why. The skew shown in the figure is due to some students not attending lectures, but it could also be due to students with different academic backgrounds having different skill sets. If there are any anomalies in the distribution it may mean you need to examine the paper in detail or explore how you could teach the topic differently.

The other measurement is reliability. Statistically reliability has a number of meanings, but in assessment terms it measures the consistency of the questions within the paper. Does a student who does well on one question also do well on others and a student who does poorly on a question do poorly on the others? There are a number of ways of measuring reliability, but the most commonly used is Cronbach's  $\alpha$ . Cronbach's  $\alpha$  is calculated by correlating half the questions with the other half and repeating this for all

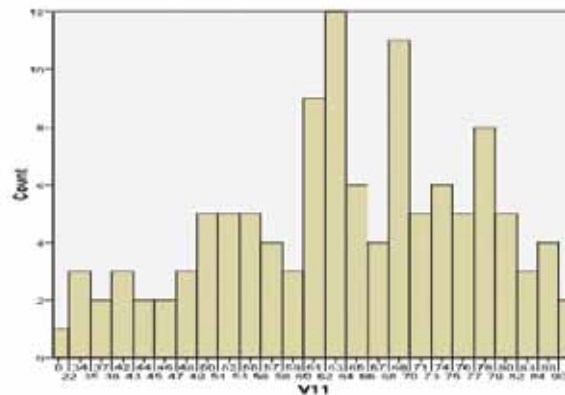


Figure 1. The histogram of the exam results.

possible split-half combinations. It produces a number between 0 and 1. It is calculated very easily using SPSS. Measuring reliability is important as it tells you how accurate your assessment is. The Standard Error of Measurement is calculated using the following formula:

$$SEM = SD \times \sqrt{1 - r}$$

SEM is the standard error of measurement, SD is the standard deviation of results and the r is the reliability.

So for a typical paper with a reliability of 0.7 and the standard deviation of results of 10 then the SEM = 5.48. This means that a person with a score of 60 has a 68% probability of having their true score within the range of 54.52 and 65.48. If the reliability is 0.9 then the range is 56.84 to 63.16 and for a reliability of 0.5 the range is 52.9 to 67.01. For "normal" exams a reliability of at least 0.7 is preferred. For high stakes examinations a reliability of at least

If there are any anomalies in the distribution it may mean you need to examine the paper in detail or explore how you could teach the topic differently.

0.8 (or even 0.9) is recommended.

## Question analysis

The next step is to examine each question in turn. There are two basic measures – difficulty and biserial correlation.

Difficulty is the proportion of students who did not get the question correct. It is usually expressed as Facility – the proportion of students who achieved a passing score

on the question. Generally we like to see a spread of facilities, in the range of 20 – 80%. Over 80% the question is easy and not discriminating and below 20%, either the question is too hard or the material was not taught.

For MCQ (multiple choice question) papers it is particularly important to examine questions where the facility is less than the guessing rate. In those questions there is either a problem with the question or an issue with the way the material is taught.

Biserial correlation is the correlation between the score on that question and the overall score (if it is used with MCQs it is called point biserial). As with all correlations you obtain a score between -1.0 and 1.0. A perfect question has a correlation of 1.0 which means that the students who did well overall did well in this question, while the students who did poorly overall did poorly in this question. If the biserial correlation is -1 then students who did well overall did poorly in this question and vice versa and a correlation of 0.0 indicates no correlation between overall score and performance on this question.

Generally we look for the biserial correlation to be > 0.3, but the closer to 1.0 the better.

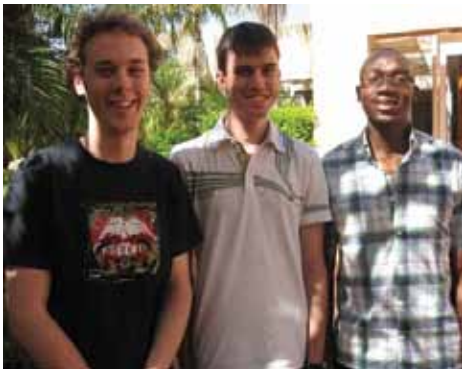
If there are problems with a question examine it closely to see where the problem arises. Remember it is not always the questions' fault, it may be the way that the material was taught.

## Summary

Analysing our assessments and their components enable us to improve the quality of assessments and the reliability of progression decisions.

# PASS in the School of Biomedical and Health Sciences

By Clare Power – Student Learning Unit



PASS facilitators (Left to right) : Joel Vosu, Ben Johnson and Samuel Asamoah

The PASS (Peer Assisted Study Sessions) program was successfully piloted in the School of Biomedical and Health Sciences in Autumn semester 2009. PASS involves trained senior students who have successfully completed the unit PASS is running in, offering facilitated study sessions for students currently studying the unit. The emphasis is on facilitation, rather than re-teaching as PASS is about students having the opportunity to learn together in a focussed environment. Ben Johnson facilitated in the unit Proteins and Genes, Samuel Asamoah in Human Medical Science 1 and Joel Vosu in Principles of Chemistry.

They are all very enthusiastic about the power of PASS in contributing to and enhancing students' learning experiences. In a discussion about PASS they emphasised the opportunity PASS provides students to discuss and deepen their understanding of course content. Joel commented that "because in PASS, students are in smaller classes, they get more interaction and can make connections that they don't necessarily get time to make in pracs." Ben added that "they are given the information in lectures and PASS is an opportunity to understand the information not just regurgitate it". Samuel said that through strategic questioning he helps students to see the big picture of the unit they are studying so that students understand how each aspect of the unit links with others. Based on their training PASS facilitators offer a range of activities that cater to the range of students learning styles and confidence with the unit. They model study strategies and provide the guidance of an experienced peer. For more information about PASS email [pass@uws.edu.au](mailto:pass@uws.edu.au) or go to [www.uws.edu.au/pass](http://www.uws.edu.au/pass)

## Words from a New Staff Member

By Dr. Colin Stack (Lecturer, School of Biomedical and Health Sciences)

My first day teaching as a new academic at UWS was surprisingly similar to my first day starting school. Coming from a research institute I had mixed feelings about taking my place at the head of a class, as this was something that I was not trained to do. This was further compounded by the fact that there would be 280 pairs of eyes staring right back at me. I remember asking myself "What am I doing here? I am a scientist not a teacher". In fact I didn't think of myself as a teacher, I was a lecturer. I thought all I had to do is walk in and rattle off a bunch of facts and that the student would absorb and understand these. I believed that my raw enthusiasm for the subject matter

would be enough to inspire the students to learn. In fact, I had never given much thought to how students actually learn.

In 2008, I participated in the Foundations of University Learning and Teaching program (FULT). This was quite an eye opening experience for me and ultimately one that has transformed the way I teach. One of the most important concepts I learned during this course was how students actually process and integrate new information. Teaching isn't meant to be teacher focused; knowledge can not merely be passed from the teacher to a passive learner. "Learning takes place through active behaviour of the student; it is what he does that he learns, not what the teacher does" (Ralph W. Tyler, 1949). A way to accomplish this is through active learning, whereby learning is built upon the experience of the learner.

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Incorporation of this strategy required moving away from fact/content based lectures and restructuring the unit I taught. I pared down each lecture to core concepts, making them a more dynamic experience for students. My approach was to order the material logically; to make links to content in other teaching and learning activities; and to make links to bigger real-world issues and events.

I introduced a class activity every 10-15 minutes either in the form of a "pop quiz", animations, or case studies, providing time for the students to absorb and integrate newly acquired information into their pre-existing knowledge. This also enabled me to gauge if in fact students had actually learned and understood the material.

Becoming an effective teacher is actually a lot like being a scientist. It requires being willing to experiment, to modify your teaching style, and to find a balance that engages students in the process of discovery. Hopefully we influence students by the way we teach and not by how much content we teach.

# The Assessment Renewal Project

**By Associate Professor Pauline Ross  
– Assistant Associate Dean Academic,  
Health**

Did you complete the recent survey in which we asked for your opinions and actions in relation to the new USW assessment, unit outlines and learning guide policies? If so, then you have already been touched by the [Assessment Renewal Project](#) in the College of Health and Science and may also now be using a new USB.

This research project aims to evaluate the effectiveness of the implementation of the criteria and standards based assessment policy in the College of Health and Science (CHS). In taking an evidence-based approach, this research requires investigation of the perceptions and experiences about criteria-based and standards-based assessments of academics, students and the school learning and teaching fellows (SLTF). The implementation of the criteria and standards-based assessment policy is guided by the Assessment Renewal Task Force. This task force is led by the Associate Dean Academic, Betty Gill, in conjunction with the Assistant Associate Dean Academic, Pauline Ross and nine School Learning and Teaching Fellows (SLTF) appointed across all CHS schools.

I am sure you know your SLTF – they are wonderfully approachable and have a number of resources to share: they include [Julia Bowman](#), [Catherine Cook](#) and [Simon Myers](#) (Biomedical and Health Sciences), [Ian Wilson](#) (Medicine), [Sharon Andrew](#) (Nursing and Midwifery), [Tara Andrews](#) (Engineering), [Charles Morris](#) and [Rosemary Nicholson](#) (Natural Sciences) and [Yun Bai](#) (Computing and Mathematics). Additionally, joining and sharing their expertise are [Rosemary Thomson](#) (TDU) and [Paul Parker](#) (SLU).

Over the next 6 months of this year, each SLTF will continue to work closely with teams and individuals within his/her school to review all units and build capacity and expertise in criteria-based and standards-based assessment. The policy implementation is unfolding in stages. The first stage of the implementation is this year (2009), when changes will be implemented in 100 and 400 level units. The second stage will soon be upon us in 2010, when the changes will be implemented in 200 and 300 level units.

Along with evaluating the effectiveness of implementation of these new and exciting policies, our team members are also developing generic standards for the most common assessment tasks across the college. They include rubrics for oral and poster presentations, group work and scientific reports. Soon we will also be able to share with you prototypes of case studies, essays and other literacy approaches (including pamphlets and popular articles), that we are currently preparing. You may have seen some examples of these colourful rainbow posters at the recent first year transition days – if you would like a closer look please go to the College vUWS site and open the file with learning and teaching resources.

## The ALTC Award Winners

**By Associate Professor Pauline Ross  
– Assistant Associate Dean Academic,  
Health**

Congratulations to our recent successful Australian and Learning Teaching Council (ALTC) winners; Drs Yenna Salamonson and Charles Morris. Yenna's citation acknowledges her outstanding contribution to evidence-based learning and teaching, while Charles Morris' citation validates his outstanding contribution at the teaching/research nexus. Applying for these national awards and the learning and teaching college awards should be considered by all academic staff who have evidence for the effectiveness of their approaches to teaching on student learning.

Perhaps you are considering applying for awards, but as yet do not have the evidence for an application. If so, you should consider joining "Awards Anonymous", which has been established in order to support academic staff when they wish to collect the evidence required to substantiate a claim for outstanding contribution to student learning, and to assist them to write applications. As its name suggests, it is an anonymous process to join: you simply turn up to the meeting, which is usually a workshop.



**Dr Charles Morris, a Senior Lecturer in the School of Natural Sciences, 2009 ALTC Citation Award Winner.**

Be warned, however, applying for learning and teaching awards could become addictive.

Each of our ALTC winners this year was an original member of "Awards Anonymous". In 2008 each had no awards for their work, now they have 5 learning and teaching awards collectively. Another bonus of winning awards is the financial gain. If you win a citation at the College level, the award money is \$2500; an excellence award is \$5000 and highly commended award is \$3000; while at the national level, the award money is \$10,000.

For further information please contact Associate Professors Pauline Ross or Catherine Sinclair.

# Teaching Online – Tips & Techniques (2)

By Dr Graeme Salter (Senior Lecturer,  
School of Computing and Mathematics)

In the previous article we looked at how to use PowerPoint to create an online simulation. However, knowing this particular technique doesn't help you design visually appealing material. In this article, we will look at how to source appropriate images.

One way to ensure that there are no copyright issues is to take photographs yourself. The quality of today's digital cameras makes it relatively simple to take great photos which can be instantly uploaded to your computer. The disadvantage is that you may require a signed release waiver if you want to include people in your images. Another problem is that you are unlikely to have access to all of the scenes you require. For example, it may not be too easy to get a photo of the inside of a volcano!

There are many websites, such as Flickr, which have searchable databases of images available under the 'Creative Commons' license. The basic license allows you to freely copy, distribute and display images as long as you give the author credit. Other options allow you to use images in a commercial setting and/or be able to modify the original. When using Flickr you need to look for the Advanced Search button to be able to select images based on this.

Another useful site is the Microsoft clipart site because the collection holds more than just clipart. After you do a search you have the option of 'Filter by Type' where you can select 'Photos' to find images you can use.

These are all free sources of images. If you have some money to spend then you can

1. buy stock image collections on DVD (you can sometimes find these on eBay at low cost)
2. buy individual images (eg. iStockphoto sells images from US\$1 each)
3. subscribe to image databases (eg. Photos.com charges US\$99.95 for a month)

Unfortunately, most of the images you get from all of these sources will be rectangular and can make your design look 'blocky'. In the next article, we will look at ways to enhance the images you have for a more creative look.

**For more information check the following sites:-**

Flickr Creative Commons - <http://www.flickr.com/creativecommons>  
Microsoft ClipArt (and photos) - <http://office.microsoft.com/en-au/clipart>  
iStockphoto - <http://www.istockphoto.com>  
Photos.com - <http://www.photos.com>  
Photo attribution - <http://www.flickr.com/photos/jnovck/2528932423/>



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# Interview with ALTC Citation Award Winner – Dr Yenna Salamonson

By Dr Yenna Salamonson – School of  
Nursing and Midwifery



Dr Yenna Salamonson, a Senior Lecturer in the School of Nursing and Midwifery has recently won a prestigious ALTC Citation Award. This has made the ‘hat trick’ in her award collection within a year – College Citation award in 2008, VC’s Excellence Award in Teaching in 2008 and ALTC Citation in 2009.

Recently, Dr Salamonson has kindly agreed to the following interview to promote good teaching practice at UWS by sharing her extensive teaching experience with all staff in the College.

**Yenna, Congratulations on your winning hat-trick! What have you done differently to others in teaching that won you the awards?**

I’m not sure if I’m that different to others. I suppose I took the time to submit an application, while other top teachers didn’t, or haven’t. The support and the time my colleagues, students, ex-students and friends invested in helping me, by writing

references, providing the evidence I needed to support my application, and giving me feedback on my drafts, in the midst of their busy schedules, I believe was what made mine the ‘winning application’. I couldn’t have asked for better support - for example, I had 4 excellent referees’ reports when only 2 were required! Needless to say, this affirmation was extremely uplifting, making the application process almost worthwhile in itself!

**What is the motivation for you to do what you have done to win these awards?**

When the College of Health & Science first called for nominations/applications, at the Inaugural Learning & Teaching Excellence Awards in 2008, it clearly stated that up to 10 Citations for Outstanding Contributions to Student Learning were on offer. I felt the odds were good – that is, I stood a good chance of being successful. I was also on Professional Development Program (PDP) leave at the time, and spent some time travelling alone, interstate and overseas. The time away, waiting at airports, and alone in hotel rooms gave me the opportunity to reflect on my teaching career, which spanned a period of over 20 years! I did the bulk of my writing for my first award during my time away; doing a type of writing I’ve never done before, about my teaching career. On reflection, this was long overdue!

When it was announced that I was one of five CHS Citation recipients, I thought I could relax just for a while... alas, it wasn’t to be. The next day, two of my colleagues arranged for Dr. Catherine Sinclair (Academic Coordinator, ALTC Initiatives, Office of the PVC – Learning & Teaching) to see me in my office, to encourage me to apply for the VC’s Excellence Award in Teaching. This year, I was again encouraged to go for an ALTC Citation award. So some ‘pushing’ by others was required in my case!

I must say the prize attached to each of these awards makes the hours and effort spent on these award applications worthwhile. The prizes have facilitated my research pursuits. And I am looking forward to spending the prize money –

e.g. on employing research assistance, attending conferences and buying that Apple MacBook (for teaching and research purposes of course!), which I could not otherwise afford.

**What impact has your work had on students learning outcomes?**

Going on what my students say, enthusiastic, inspiring and motivating, and passionate about the subject matter were words they used. Memorable is perhaps another description. It is always rewarding to have ex-students come up to me in the clinical setting, years after I have taught them, to let me know that they remembered that particular lecture I gave, and remarks like “you were the best teacher I had”. This type of spontaneous unsolicited feedback is affirming, and it’s good to know that I am more than just a ‘mediocre’ teacher. My educational research work has also had a tangible impact on my student’s learning. For example, with colleagues, I undertook a randomised trial targeting nursing students with low to medium English-language proficiency in the ‘Supporting Academic Performance and Improvement targeting English as Second Language Nursing Students (SAPIENT) project funded by the Rotary Club of Liverpool West. In addition to a statistically significant increase in students’ self-efficacy post-intervention, students who attended the embedded academic writing workshop achieved higher assignment marks compared to the control group. Having said that, it is still early days, I’ve only started to engage in serious educational research in the last five years.

**What is your next project – if it is not a top secret?**

It’s not a secret. There is no single project but multiple small projects, on interprofessional learning and teaching, educational research on improving academic performance in English as second language nursing students, and looking for opportunities to work with others, in both clinical as well as education research. For an introvert, it is a bit strange that I like working in teams, love the camaraderie, always looking for opportunities to increase my network for research collaboration.

**For details relating to this newsletter or you wish to contribute to this newsletter, please contact:  
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