

Learning Highlights

Spring 2012

From the Academic Director for Taught Programmes

As many of you will know, I took over from Professor Geoff Moore as From the Academic Director for Taught Programmes in August 2011. The programme of work is diverse and challenging with change occurring on a number of separate fronts. I have been working with colleagues in LTS and TPPG on the next stage in the de-

velopment of the undergraduate New Academic Model whilst also developing the precepts of the post-graduate version of the NAM. Two new Codes of Practice are also in development: one for placement learning and one on assessment. I have also been tasked with carrying-out a root and branch review of the University's academic appeals and complaints policies and procedures during the current academic year, which en-

compass both the operation of concessions and the treatment of extenuating circumstances. I have established a small working group to review our plagiarism and collusion policies and the guidance provided to students and staff on their application whilst acting as the academic lead on our interim (mid-cycle) QAA audit which will be completed later in the year. The new role is fascinating in the sense that it provides a unique insight into the inner workings of the University. The workload is daunting, but the generous support received from colleagues from across the four separate faculties has made it a pleasure. I look forward to working with academic and administrative colleagues over the next 3 years as the University begins to implement its new Corporate Plan.

Adam Longcroft
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PhD students in Evolutionary Biology take a break from their studies to build a snow Darwin!

Welcome to the spring issue of Learning Highlights.

In this issue find out what the Teaching Excellence Award winners did with their prizes, discover how students are learning through interactive mindmaps in maths and by designing and implementing their own studies on a field course. Get a handle on giving feedback effectively and find out which up and coming-CSED courses might be of interest to you.

If you would like to contribute to future issues please contact the editor Sarah Yeates directly at s.yeates@uea.ac.uk, x2182

Next issue submission deadline May 31st 2011

Excellence in Teaching awards: What did the winners do with the £1000 prize?

'I bought a Longines watch which accounted for all of the cash almost exactly. I love watches and I wear it every day so that when I check the time it reminds me of the award.'

Robert Jenkins (DoS)

'I put my money towards a car that we needed desperately. It was wonderful to have it and so helpful in difficult financial times.'

Jon Larner (AHP)

'I am an enthusiastic collector of fossils and I bought a beautiful specimen fossilised ichthyosaur ribs, with belemnites from the Jurassic Coast. This has pride of place in my cabinet and when I look at it, I think of my students and how much I enjoy teaching. The rest I used towards a family weekend at Centre Parcs, where my eldest son learnt to sail and my youngest proved he could cope with the rapid water slides (I refused to go down). My nieces came with us and we still talk about how much fun we had. The memories are very precious.'

Kay Yeoman (BIO)

'I bought flights and accommodation in Belfast to spend time working on research into the Northern Ireland peace process and the role of churches in breaking down community tensions. I was able to interview former republican and loyalist terrorists, politicians, community and church leaders. Apart from taking in an Ipswich Town tour game against Glentoran, resulting in an unaccustomed win for the Tractor Boys, the rest of the money was donated to the Guinness Family.'

Lee Marsden (PSI)

'I had recently taken up piano lessons and was having to practise on a keyboard. I blew the whole lot on a lovely 1930s English piano, which is my pride and joy, and each evening I play it so that I can unwind from the stresses of teaching.'

Harriet Jones (BIO)

'I went to Canada for a holiday and forgot to turn off my data roaming, so the money was a helpful contribution to the £1100 phone bill I received. This meant the money didn't come out of the joint account so you could say that the teaching award saved my marriage.'

Paul Mcdermott (PHA)

'My wife and I went on our first trip to Italy and the money allowed us to stay in the lap of luxury in a wonderful castle, high on a hill, near Perugia. We toasted my students from our beautiful balcony, on a warm Umbrian evening. We shall treasure our memories of the hotel and visits to Perugia, Assisi, Gubbio and Rome.'

Carlos De Pablos-Ortega (LCS)



'I used it to pay to go to my sister's wedding in Gambia'

Sarah Garland (AMS)

'Having the extra funds has meant when returning to friends and family who we haven't seen for some time, we have been able to treat them to some extra-special trips and meals which has made the reunions even more enjoyable!'

Fiona Poland (AHP)

'My £1,000 went towards a summer holiday with my family. Nothing like a holiday to recharge the batteries so that you are re-energised for the forthcoming year of teaching.'

Nicola Spalding (AHP)

'I bought the latest iPhone, which I try to employ to bring a fun dynamic to teaching activities. The rationale is not just to appeal to student geeks, but that if I am enjoying my teaching then the students will too. We live tweet lab demonstrating sessions and encourage students to join in, the messages are displayed to the whole class through projectors on either side of the lab (www.twitter.com/CHE2C32). Carrying a smartphone linked up to a heart rate monitor means we can show the students just how actively we engage with the demonstrating process: for example in a recent 2 hour 40 min demonstrating session I burnt 57 cal and covered 2.88 miles at an average of 1.09 mph, my maximum heart rate was 97, minimum 58, with an average of 76, which of course was tweeted to the students. I expect my death to be obvious from the iPhone in seconds and from Twitter within 24 hours.'

Simon Lancaster (CHE)

'It went straight to where it was most needed, which is my mortgage. Of course I should have spent it on teaching but just think of it – the sooner I pay off my mortgage, the more likely I will stay in Norwich, so the more likely I'd stay at the UEA. And surely that would benefit teaching!'

Rudy Lapeer (CMP)

'I went on a girly shopping trip to replace some of my very tired wardrobe. The rest contributed towards a family holiday.'

Helen James (BIO)

'Just after I was awarded my prize my daughter's car failed its MOT and was not worth spending any more money on – you can guess where my money went!!'

Susan Long (ECO)

'It was much needed extra cash that went towards paying a builder to help with house renovation!'

Ros Boar (ENV)

Learning by Doing on a Field Course in Ireland

Each September staff from ENV and BIO take between 40 and 70 students from BIO and ENV as well as CHE and DEV to the far west coast of Ireland, on the Dingle peninsula in Kerry. The two week field trip takes place in breathtaking surroundings- just imagine looking out past the 5 mile long sandy beach and dune system to the estuary filled with feeding wading birds and ducks, then turning 90 degrees and raising your eyes along the mountain stream running up the heather cloaked moorlands, and you can get an idea of the location. It's perfect for studying the natural world. The field trip offers an unrivalled experience at UEA, teaching in small groups throughout the 13 days, whilst learning the progression from observation, through scientific questioning, to data collection and analysis. All of this in a friendly and inviting atmosphere, staying in comfortable and affordable accommodation in one of the greenest (and rainiest) places in Europe.

- "What a great way to learn the material and create interest in the subject"
- "Amazing, hard work, learnt loads, had fun; what could be better"
- "I loved the fact that gaining of knowledge was dependent on direct student:staff interaction and participation- it encourages motivation and independence i have never learnt as much in such a short time"
- "The field trip has made me more passionate and confident about my whole degree"

They are learning-by-doing, from enthusiastic staff, in a stunning field setting. The resulting leap in understanding of the complex nature of ecosystems and communities is very satisfying, as is resting tired feet after climbing in the mountains with a views over Inch beach (pictured below).

Iain Barr (BIO)
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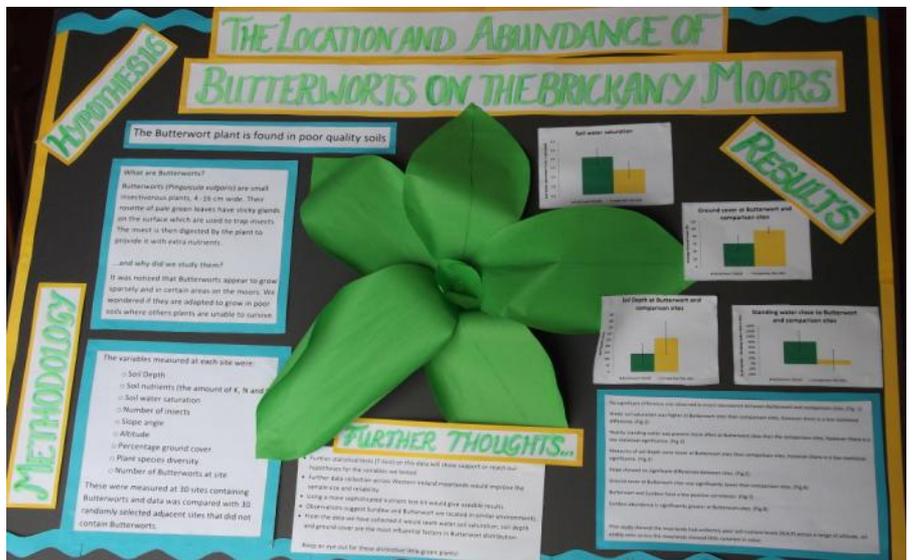
Students measuring floral diversity in the moorland (top) and recording bird behaviour at dawn on Inch beach (above).



The days can be long; rising with the tides at 6am, studying all morning and afternoon, a swift break for dinner followed by an evening statistics seminar, but time flies by and, overwhelmingly, students say that this is one of the best experiences they have at UEA:



Inch beach (above), the lunch stop in Kilarny National Park (left) and a poster resulting from four days spent studying a research question designed and implemented by the students during the field course (below).



Streamlining Assessment and Giving Feedback Effectively

Workshop run by Sally Brown of the Leeds Metropolitan University, 20th January 2012.

I am new to University life; I know little about the pitfalls of providing feedback. This workshop was very helpful in demystifying the process. Sally discussed the importance of feedback and how it can be used as part of a cycle for improvement of student performance. She took us from a basic understanding of assessment to novel ways in which feedback can be delivered that are not only proven to be effective but also saves the tutor time when compared with conventional methods. She illustrated this with many examples taken from her wide experience of delivering courses and giving feedback in many different educational establishments in a variety of countries.

Sally had an encyclopaedic knowledge of the research in this area, which she was keen to communicate. She emphasised the importance of providing good assessment and feedback to students and stated Boud's view that "Assessment methods and requirements probably have a greater influence on how and what students learn than any other single factor". It is vital that feedback is provided in a timely fashion so that students can learn from their mistakes- a process known as feed-forward. She also stated that the way feedback is given is important- some students will take negative feedback as a spur on to greater things, but others will just assume that it confirms their view that the limit of their intelligence is fixed.

Sally explained the difference between formative assessment- that usually involves words, and summative assessment -that normally involved numbers. She counselled against using only an "end-of-term" examination to determine performance as this is demotivating for all but a few students, and does not encourage them to learn; rather it is better to

have many different types of assessment, both formative and summative.

We then had a presentation on work done by Harriet Jones and Helen James on the effectiveness of feedback. They conducted a survey of students within four schools at the UEA, asking their opinions of the feedback they had received. They found that feedback should be presented in an encouraging manner and framed in constructive terms; it should be positive, seeking to provide motivation, and should allow the student to check their understanding. Their conclusion was that formative feedback done well is very valuable to the student, but that most courses do not leave enough time for feedback.



To conclude the morning session, Sally summarised a few guidelines for effective feedback, which were:

- Audio feedback could be more effective than written feedback.
- Ensure the students expect high quality feedback from day 1 of a course as they form habits early in their University life that are difficult to change later.
- Focus feedback on performance, not individual characteristics.
- Avoid negative language, which can be destructive.
- Consider supplying published worked answers for both formative and summative assessments

that can be viewed immediately after handing a piece of work in.

- Use self or peer review as a way of getting feedback to the students quickly.
- Avoid e-mail tennis with a student- it is time-consuming and does not engage the whole class; students hate unfairness. Instead publish the answer to the questions so that everyone can benefit.
- Help students to manage their own time and effort effectively by giving them clear guidance on what is expected of them, and when. Avoid students' effort being driven by the next assignment.
- Build workshops into the course where the sole purpose is to provide feedback on a particular topic.

This was a very worthwhile workshop for all those wishing to improve the quality of their feedback or seeking new ways to engage with the students. Unfortunately I was unable to attend the afternoon session due to a prior commitment, but if the opportunity arises again my name will be first on the attendance sheet!

Dr Steve Day
Lecturer in Forensic
Science



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CSED Learning and Teaching Courses on Offer



UEA's Centre for Staff and Educational Development (CSED) are running a variety of courses related to learning and teaching this semester.

For details of the full program please check out the CSED website :

<https://intranet.uea.ac.uk/csed/programme11>

Peer-led and Peer-assisted Learning: Maximising the Role of Students in Supporting the Learning of Their Peers

Date and time: Friday 9 March 2012. 09.00-12.00.

Repeated: Friday 9 March 2012, 14.00-17.00

Venue: Room 0.24, Chancellor's Drive Annexe

Session Leaders: Adam Longcroft, Director of Taught Programmes and Marco Angelini, PAL Co-ordinator, UCL.

Peer-Assisted Learning (PAL), Peer-Assisted Study Sessions (PASS) and Supplemental Instruction (SI) are examples of student-led learning widely employed in HEIs in the USA, Australia, Canada and the UK. The focus of PAL is on more experienced students (normally 2nd and 3rd years) supporting the learning of the less experienced (normally 1st years), usually on 'difficult' modules in which students struggle with 'threshold concepts' or difficult content, and in which there are high failure rates, low student satisfaction or poor performance. This workshop shows the advantages of integrating PAL sessions into

1st year programmes: 1st years gain additional support and learn and make mistakes in a safe learning environment, less staff time is spent dealing with 'non-academic' questions, students progress quicker and gain higher grades, and the 2nd/3rd year 'mentors' gain valuable skills (supporting others, leadership, planning, team-working, communication, listening-skills) that are attractive to employers.



Cross-cultural Awareness and Communications in a Diverse University

Date and time: Monday 19 March 2012, 14.00-17.00

Venue: Council Chamber, Council House

Session Leader: Jude Carroll (Oxford Brookes)

This event can cover issues that crop up when students from culturally and linguistically diverse backgrounds study at UEA. Ensuring students and teachers can engage and navigate HE study is complex and challenging. One session will not provide the answers but is a chance to hear from students about what their experiences have been and what helped or blocked their achievements. It will also draw on work done through the Teaching International Students project hosted by the HEA which collected and commented on re-

search, good practice and possible ways to deal with teaching students with diverse backgrounds. Before the session, we will identify key aspects for UEA teachers and make time to discuss support and guidance for specific groups such as Masters students, those entering in Year Three, and those in specific disciplines. The session is interactive, with presentations, discussions and review of resources.

Designing-out Plagiarism from the Assessment Process

Date and time: Monday 19 March 2012, 09.00-12.00

Venue: Council Chamber, Council House.

Session Leaders: Jude Carroll (Oxford Brookes), Adam Longcroft, Director of Taught Programmes and Plagiarism Officers in each Faculty.

Interconnecting activities are needed to manage student plagiarism such as ensuring students are aware of their responsibilities, teaching relevant skills, and matching penalties with the level of misconduct. This workshop focuses on assessment design as part of UEA's management of plagiarism. The issue can deliver the maximum benefit for time and effort expended, and probably enhances students' learning by shutting off possibilities for finding, copying or faking answers. Instead, by focusing on assessment tasks and authenticating the work needed to complete them, students can be guided to doing their own work and so their own learning. Teachers need to design in opportunities for practice and feedback as students grow in mastery as authors and users of others' words and ideas. Participants can share, rethink or confirm their own practice, drawing on presentations, discussions and cases from a range of disciplines.

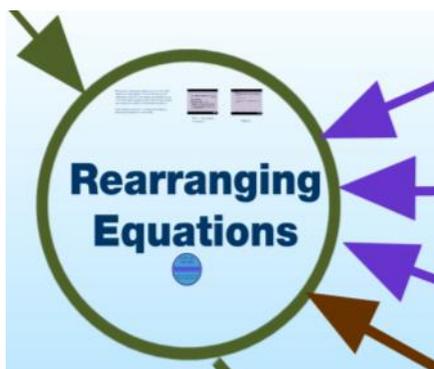
Contact Tim York to book a place: t.york@uea.ac.uk

Learning Through Interactive Web-Based Mind Maps

Students use mind-maps to help them understand how themes and topics interconnect and to see the bigger picture. Tutors at UEA have taken this idea, in conjunction with the on-line presentation tool Prezi, and built interactive web-based environments for lecture courses in the School of Pharmacy and mathematics support in the Dean of Students' Office.

Dr. Robert Jenkins (DOS) and Dr. Paul McDermott (PHA) came up with the idea after being frustrated by the linear, sequential arrangement of topics in teaching and support material which encouraged students to compartmentalise topic areas and often to miss the important links between them.

Take the fundamental skill of rearranging an equation for example; something many students have difficulty with. The problem rarely lies with rearranging the equation *per se*. Instead, the root cause is usually a misunderstanding of connected skills such as mathematical inverses, algebraic fractions, factorisation and so on. Conventional teaching methods do little to reveal the relationship between these topics and the hierarchy that underlies their interconnectivity.



The online presentation tool Prezi, an increasingly popular alternative to PowerPoint, provides a unique way of overcoming some of these difficulties. Dr. Jenkins and Dr. McDermott realised its potential as an environment in which to build interactive mind-maps which act as interconnected repositories of course or topic materials. Prezi is a free to use web resource which

can be accessed for free via any Flash-enabled browser or iPad App.

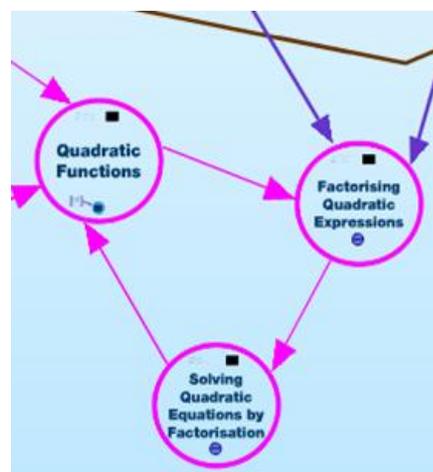
The idea was first implemented in 2010/11 by Dr. McDermott on the life sciences chemistry course which introduces first year PHA students to organic/medicinal chemistry and requires knowledge of many fundamental chemical principles. Dr. McDermott built and developed an interactive mind-map, using Prezi, alongside the lecture course and linked to it via Blackboard. As each lecture was given, a screencast of the relevant material, along with interactive questions, was added to the mind-map. The screencasts were created using Camtasia and typically lasted 10-15 min. The material was arranged to best illustrate the underlying connection between each of the concepts that had been taught. Lastly, a path was created through the content which allowed students to view everything in sequence if they so wished.

Usage statistics showed that it had been viewed over 10,000 times by a cohort of 120 students showing that students had engaged with the material during the course, as a revision tool and after the course had ended, probably as a reference source for subsequent courses.

Meanwhile Dr. Jenkins, working on organising the mathematics support materials on offer from the Learning Enhancement Team (LET) (DOS), used Prezi to create a mind map that revealed the underlying connections between topics in algebra. Eleven existing study guides were recorded as a web-cast and embedded into the Prezi via YouTube. Material was then accessible via Prezi, YouTube, the LET website as a pdf or an mp4 video, and in DOS itself as a paper copy. Students could also download any webcast directly to a Smartphone by using the QR-code printed on the paper copy of each study guide. In addition, mind-maps were available to stu-

dents via course Blackboard sites. In the 12 weeks of the Autumn semester over 400 individuals viewed the Prezi.

Dr. Jenkins and colleagues in LET have since completed a mind-map for trigonometry and numeracy. In addition, the team is investigating how to utilise this approach for study guides covering aspects of academic writing and study skills. Following the success of Dr. McDermott's mind-map other lecturers in PHA have created mind-maps to support their modules, including a Prezi-based resource aimed at priming students for their laboratory classes.



See for yourself:

Life Sciences Mind-Map:

Version 1 (2010-2011)

<http://prezi.com/r67lujd1fm2s/life-sciences-chemistry-mind-map/>

Version 2 (2011-2012)

<http://prezi.com/ykwms-rbeyxa/knowledge-map/>

Steps into Algebra Mind-Map:

http://prezi.com/yiwi94q8b_br/steps-into-algebra-mind-map/

Robert Jenkins
Learning Enhancement
Tutor for Mathematics
and Statistics.



Paul McDermott
Lecturer in Medicinal
Chemistry in the School
of Pharmacy.



Writing Skills: Help For Students Available in LIT

Twelve years ago, the biographer Hilary Spurling had a brainwave. The Royal Literary Fund's coffers had accrued money from the royalties of the estates of writers like AA Milne and Somerset Maugham. Why not use it to fund the placing of professional writers in universities around the country, to help students with academic writing. The Fellowship scheme began tentatively in 1999 with a handful of writers. By this autumn - the start of our 14th year - there will have been some 300 writers who have worked as Fellows at over 100 different higher education institutions.

My colleague Nick Caistor and I have been at UEA since Autumn 2010, with Raffaella Barker joining us in 2011. We follow in the illustrious footsteps of former Fellows Andrew Cowan, Jill Dawson, Joyce Dunbar, Stephen Foster, Lakshmi Holmström, Clive Sinclair, Keith Tutt and Anthony Vivis. When we're not on campus, Nick is a translator and author, Raffaella is a novelist and I am a

scriptwriter.

The Fellowship scheme has two aims. Firstly it supports working writers by providing financial support. Unless you're JK Rowling, a regular and reliable wage is not a given. The second aim is to use these professional writers to assist students with their essays and dissertations. For both the writers and the participating universities, it's a win:win situation.

Over the course of a typical RLF day, I will see five or six students who feel their writing can be improved. Often the minutiae of a complex subject may be beyond me but I can still make suggestions about style and presentation. Sometimes it's simply a question of revisiting some of the long-forgotten rules of basic grammar and syntax. The most satisfying sessions come when students need advice on structuring an essay; many start to write without having a plan by their side or a destination in mind.

Some students take full advantage of us and come back on a regular basis. Others visit once and are never seen again. The best feedback is when students tell us that their marks have improved after sorting out, once and for all, those pesky paragraphs or confusing commas.

We are often asked to proof-read students' work but this is not part of our remit. Some only make use of us at the last minute, with deadlines fast approaching. It's much more sensible to make an appointment at an early stage, before panic sets in. All one-to-one sessions are free and confidential and we are happy to help.

To make an appointment, go to the RLF office (Arts 2, Room 2.45) and write your name against a day and time that suits you.

Sue Teddern
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www.rlf.org.uk



The Swap-Shop Corner

Students in the School of Biological Sciences, who did a third year module in science communication last academic year, have just had some of their work published on the ARKive Website (<http://www.arkive.org/>) ARKive is a project run by the charity Wildscreen, whose patron is Sir David Attenborough. ARKive aims to create the ultimate multimedia guide to the world's endangered animals, plants and fungi.

Our students were invited to write a page each for one species, ranging from the Hildegard's tomb bat to the Golden Vietnamese cypress

(below). The students had to research their chosen species using only peer reviewed material, and then write the profile in an accessible style for the general public.

After submission to ARKive, all the profiles were sent for peer review, and they have recently been published on the website. In doing this work, the students had to use a range of research and writing skills which they had developed during their degree programmes. They then had the satisfaction of knowing their work had ultimately reached publication standards through peer review.



To view some of the profiles search ARKive for gulper shark (bottom right), ringed boghunter (above), yellow wedge grouper, and spiny angel shark.

Kay Yeoman (BIO)



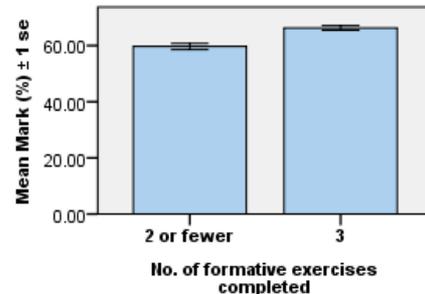
If you have any innovative teaching ideas to share, or sessions planned for next year and don't mind a few visitors to observe then please contact Kay Yeoman (k.yeoman@uea.ac.uk) or the editor (s.yeates@uea.ac.uk) to feature in Swap Shop Corner.



Marks improved after a program of formative assessments

In a BIO first year module students undergo a learning programme to help them write up scientific reports; this is something they find very difficult. Following a lecture on how to write a report, they complete an initial formative write up of an experiment and receive comments only, mainly on the structure of the report itself. They then complete a second write up from another experiment and receive comments, generally on content, and a rough idea of their grade. They then carry out a third practical experiment and bring a draft of their write up to a peer review session where their scripts are commented on by two of their peers. They then get their draft returned to them, with peer-reviewer comments, and then correct and submit this as their summative assessment. Students who completed all three formative exercises

achieved a mean mark of 66% for the summative assignment. This was significantly higher ($P < 0.001$) than students who completed 2 or fewer formative assignments, who achieved a mean mark of 59%.



Percentage of students engaging with the formative exercises

| Number of formative exercises completed | % students (n=116) |
|---|--------------------|
| 0 | 1.7 |
| 1 | 2.6 |
| 2 | 25.0 |
| 3 | 70.7 |

These data clearly demonstrate the benefits to students of engaging with a formative teaching programme.

Harriet Jones (BIO)
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Publications

Are Our Students Prepared for University?

Harriet Jones of the School of Biological Sciences evaluates a program that she has developed for school pupils and teachers to increase awareness of the skills required at university. Her article was published recently in *Bioscience Education*, an online journal published by the Higher Education Academy.

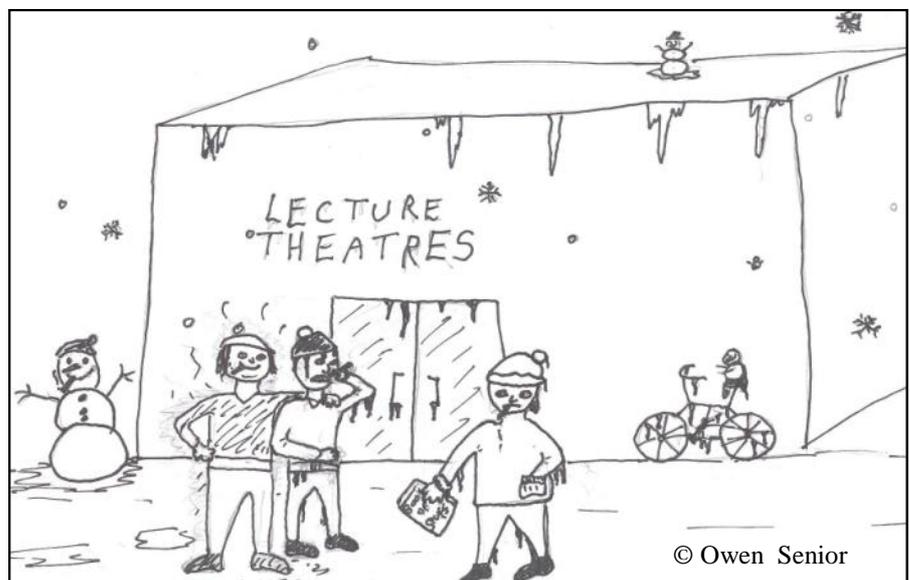
Abstract

The A-level curricula are not preparing students for a university education, concentrating more on knowledge than skills. However, because of aspects such as the modular design of A-levels, subject knowledge can also be lacking in students as they enter university education. Diagnostic tests in maths and literacy for first year bioscience undergraduates show that, although many students write well and handle numbers effectively, there is a worryingly high percentage of students with skills well below what would be expected of those opting for a biology degree programme. Such ba-

sic skills should not be taught at university. With this in mind a course was designed, piloted and evaluated to teach sixth form pupils about the skills that will be required of them at university. These included aspects such as structuring, writing, taking notes and acknowledging sources of information. Evaluation of this programme has shown it to be effective in developing an awareness of university-level skills in both school pupils and school teachers. The Pre-

University Skills programme (www.preuniversityskills.com) was launched in January 2011 and has now reached almost 200 teachers across England, with many now delivering the material to their pupils.

To read the full article go to: Volume 18 of *Bioscience Education*, <http://www.bioscience.heacademy.ac.uk/journal/vol18/beej-18-4SE.aspx>



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As temperatures drop below freezing it becomes easier to spot the students who have spent too long in the radiation labs!