

**Case Study**

# **University of Liverpool**

Department of Life Sciences, UK



# About the University

The University of Liverpool is a founding member of the Russell Group of 24 prestigious British public research universities and is ranked in the top 1% of universities worldwide. **With 23,000 students on campus and 5,600 staff, the university comprises three faculties, organised into 25 departments and schools and offers more than 230 first degree courses across 103 subjects.**

## Case Summary

McGraw-Hill Education's adaptive learning system Connect® enables Liverpool University to move to a system of continuous assessment and provide its students with timely feedback on performance and progression.

Student satisfaction levels are at 85%. It is the only UK university to offer scientific and clinical education that spans the full range of biosciences, clinical medicine, health sciences, dentistry, veterinary sciences and tropical medicine.

The School of Life Sciences at Liverpool brings together Biological Sciences and Biomedical Sciences, and attracts around 400 students per year, making a total of almost 1500 students around the school on undergraduate and postgraduate courses across the full spectrum of biology. This covers everything from whole organisms, through molecular genetics, to structural biology, biological chemistry and biomedical sciences.

For students studying in the Life Sciences, the aim is to make them experts in one particular field, but with the ability to cross discipline boundaries – a combination

of strengths which is highly attractive to prospective employers. Areas of future employment for life science graduates include food security, global warming, new energy sources, and the treatment of plant, animal and human diseases.



Peter Alston, lecturer

**“The best thing about the LearnSmart® tool is that when a student gets a question wrong, the software changes and asks more and different questions about that topic.”**

## The Challenge

Student satisfaction is now a key metric for UK universities who have engaged more with their undergraduates and postgraduates and delivered more student-centric services following the introduction of tuition fees.

As part of its 2013 curriculum review to revamp and upgrade the programme, the School of Life Science decided to increase its use of continuous assessment. This was intended to give students the benefit of early feedback on their progression and performance.

“Continuous assessment makes our courses a better fit for students,” said lecturer Peter Alston. “We know that it benefits undergraduates, particularly those in the first year who arrive straight from sixth forms where they have already become used to this type of learning and feedback.

“However, with 400 students on our core modules, providing challenging assessments for students, and giving feedback in a timely manner, is extremely challenging.” Given the large numbers of students involved, the lecturing team ruled out paper-based testing as being too difficult and time-consuming and so sought an online solution.

“We do lots of team teaching, and although there are 16 lecturers based within the School of Life Sciences, some 100 staff from across the Faculty contribute to the teaching of the programmes. Therefore it is more challenging to implement new modes of assessment properly and it was vital to settle on a method that was easy to integrate with our virtual learning environment (VLE).”

## The Solution

“A staff working group within the School reviewed the options available in the marketplace for online assessment and decided to go with the McGraw-Hill Education solution, since it offered a core textbook that covered the majority of theory discussed in the Year 1 curriculum, whilst also providing an extensive test bank and online simulators for students. McGraw-Hill Education offered an online solution which enabled us not only to provide students with a core text for the whole of their undergraduate studies, but also to make use of an impressive learning and assessment platform which both staff and students have found to be extremely useful and beneficial.”

“We started using Connect in September 2013 and introduced it to students as part of our induction week activities, with a full explanation of its functions and capabilities. A representative from McGraw-Hill Education came to talk to our first year students and discuss what the system could do for them. In September 2014, I gave the presentation for students, building on what had been said in the previous year.”

“We also provided guides on how to register for the relevant materials, and organised drop-in support sessions to help with registration and access.”

McGraw-Hill Education Connect is an online teaching and learning space full of interactive digital tools for students and lecturers. Connect prepares students for success by helping them to test understanding as they go, building confidence and knowledge every step of the way. Lecturers can easily assign exercises and assess and report on students’ progress in this integrated online resource.

## The Results

“Connect has been hugely valuable in helping us to meet the needs of our students and bringing benefits across the campus. Just as we wanted, Connect has provided far more opportunities for our students to get instant feedback on their performance throughout a module. It provides them with evidence and a steer for how they are performing as they progress through the year and comes into its own during periods of revision and at the end of module exams. Students report that they like the way the adaptive learning solution helps them to clarify their thoughts around the topic that they are studying.”

“The best thing about the LearnSmart tool is that when a student gets a question wrong, the software changes and asks more and different questions about that topic. Students liken it to having an individual tutor and, particularly at the end-of-term resits, often ask for exercises to be available again to help with revision.”

“The LearnSmart Labs® resources (online simulations) are also useful in our first year practical module, whereby the students are required to complete Health and Safety activities before they enter the lab. Using the online resources, they can practise the simulations to make sure they are doing them correctly before they go into the ‘real’ lab.”

“From the lecturing team’s point of view, it has made our lives considerably easier and has definitely helped us to meet the needs of our students. It is fully integrated with our VLE and so fits with our team-teaching approach while making the job of running continuous assessment quite painless.”

“Access to the question/test banks is extremely helpful, especially in modules with formative assessment where we like to support our students by giving them an opportunity to practise and review what they have learned before they get to the end-of-module exams.”

“We have found that those students who engage with Connect tend to do better with their summative assessments.”

Subject Area	<b>Life Sciences</b>
Digital Product in Use	<b>McGraw-Hill Education Connect</b>
Featured Product	<b>Connect &amp; LearnSmart</b>
Course Name	<b>Various courses</b>
Course Type	<b>15 (150)</b>
Credit Hours	<b>Biology, Raven, 10th ed. (Customised for Liverpool to include additional chapters and online content)</b>
Textbook in Use	<b>Various – lots of team teaching</b>
Enrolment	<b>2013/14 and 2014/15</b>
Case Study Term	<b>Positive student feedback on benefit to their studies</b>
Outcomes	<b>Positive staff feedback on ease of use</b>