Presentation Abstracts

Learning and Teaching Conference 2nd July 2021

10:30 - 10:45 Flood Week: Integrating York Strengths into a taught module for Environment and Geography Students

Jenny Pollard, Tamsyn Kiss and Brett Sallach; Environment and Geography, University of York.

The Flood Control Course (Flood Week), a week-long interactive module in the Environment and Geography department for first year undergraduates, has been used for several years to combine employability skills with topical learning. Students work as part of a 'company' to develop innovative solutions to York's flooding. Throughout the week, the scenario evolves, culminating in a presentation of their solutions to peers, module convenors, and representatives from York City Council and the Environment Agency.

In 2020, Flood Week had two firsts: Flood Week was delivered online, and York Strengths took the place of the initial ice breaking event. Students undertook the York Strengths online course to identify their key strengths and were encouraged to bring those strengths to the group work, considering whether they were authentic communicators, agile learners, or problem solvers. This was supported by daily video reminders of the skills they would be developing that day, tailored to the day's activities and the changing scenario.

Of the 114 students who engaged with the module, 76% completed the York Strengths online course. Students who took part in the integrated York Strengths and Flood Control Course have used their identified strengths in their CVs and cover letters, in addition to using the module itself as an example of team working to complete a task. We plan to maintain the combination of Flood Week and York Strengths, building these concepts of employability skills into the student experience early to allow and encourage student growth throughout their degrees.

10:45 - 11:00 Industrial Project: Providing Software and IT services to organizations serving the public interest.

Dimitris Dranidis, Computer Science, CITY College, University of York Europe Campus

A fundamental aspect of the programmes of the Computer Science Department, CITY College, University of York Europe Campus is to provide students with opportunities to work with real clients. The Industrial Project is a credit bearing module offered at the final year of our UG and PGT programmes, with the aim to enhance the employability profile of students. Students work in teams on real-life projects provided by external clients.

Team-work on a software development project provides an opportunity to students to apply the skills and knowledge they have acquired during their studies to a realistic problem. Students are exposed to contemporary software development processes and tools, familiarize themselves with the practices followed in the industry, and deal with the challenges of effective communication, collaboration, and time-management, thus building a competitive employability profile.

Moreover our Department, driven by its commitment to social responsibility, provides via the Industrial Project free of charge IT solutions to charity and non-profit organizations (Alzheimer Hellas, UN International Organisation for Migration, etc.) This initiative aligns with our strategic goal to reach out and work with the wider society in order to strengthen relationships with local communities.

The presentation aims to discuss details about the delivery and the assessment methods of the module, the role of the module leader and how we handle all the challenges that emerge, such as collaboration issues within student groups, communication with the client, from setting and agreeing on the project, up to the delivery of the final product by the students.

11:00 - 11:15 Faculty opinions regarding the incorporation of systems thinking into undergraduate chemistry education.

Alice Jackson and Glenn Hurst; Chemistry, University of York.

Research suggests that systems thinking is beneficial to education. It has been proposed that training students using systems thinking techniques may enhance their abilities to work on interdisciplinary projects to understand and solve some of the global grand challenges that society currently faces as outlined by the United Nations Sustainable Development Goals. However, before systems thinking can be incorporated into chemistry education, the perceptions of the instructors who would adopt this framework must be investigated. Therefore, semi-structured interviews were conducted with 14 instructors from the Department of Chemistry at the University of York. Responses were analysed using both qualitative (framework method) and quantitative (Likert-style) techniques. The instructors expressed positive opinions of systems thinking as all participants stated that systems thinking techniques should be implemented into the undergraduate chemistry curriculum to some extent. Examples of anticipated advantages include benefits to student learning, the facilitation of interdisciplinary teaching/learning and enhanced student employability prospects. Research has suggested that curriculum reform is only successful with support from instructors and so these positive opinions of systems thinking from participants with expertise from a variety of areas within chemistry show great promise for the prospect of future implementation.

11:15 - 11:30 Futures thinking, interdisciplinary workshops in the Department of Environment and Geography

Claire Hughes, Laura Chapman, Jo Cruz and Dean Walters; Environment and Geography, University of York.

During the autumn term 20/21 members of the Teaching and Scholarship Team in the Department of Environment and Geography ran a series of extracurricular futures thinking, interdisciplinary workshops which were intended as a trial run for a summative module. Students from all levels and programmes were invited to join the workshops and work in interdisciplinary teams to define a future 3R's (reduce, reuse, recycle) vision for the City of York or University, and design innovations that would help us to move towards the future vision. The workshops, which were held predominantly online, introduced students to frameworks for visioning, current state analysis, scenario construction, stakeholder analysis, transitioning and planning. The capstone activity was a student-led conference involving key stakeholders from the University, York City Council, business, community groups and community interest companies at which student groups presented their ideas.

During this talk we will present further details of this initiative, and share student outputs and feedback from students and stakeholders. We will also share our thoughts on developing this activity as a summative module, and how that will contribute to our plans for moving towards a 'solutions-based' pedagogy.

13:30 - 13:45 Using Online Game-based Business Simulation to teach Entrepreneurship effectively to Engineering students – A Case Study

Bidyut Baruah; Electronic Engineering, University of York.

The landscape of engineering is constantly evolving and today, engineers are expected to have an understanding of not only science and technology but also certain aspects of business acumen such as the ability to understand market trends and customers' demands, identify business opportunities and commercialization of new innovation and products. So, there is a growing emphasis in Higher Education to teach such entrepreneurship skills to engineering students. However, there are no clear guidelines on effective teaching strategies for entrepreneurship within the engineering discipline. Currently with COVID-19 limiting teaching options,

addressing some of the complex attributes of entrepreneurship education has been a challenge. Given current and potentially future limitations, what can be an effective way to teach entrepreneurship to engineering students? This presentation will highlight the case study of an interdisciplinary programme MSc Engineering Management in the Department of Electronic Engineering where a 10 credit module 'Enterprise' focuses solely on the development of entrepreneurial skills among students. An Online Game-based Business Simulation was utilized to give students an authentic experience of running a business and validating their innovative ideas. A survey was conducted among the current cohort of 104 students to measure their confidence with creativity and problem solving within a business set up before and after undertaking this module. Can such experiential technologies facilitate the development of a wide range of skills needed to stimulate students' entrepreneurial competences? The presentation will discuss the findings of this study and also highlight if such approaches can transform the educational setting in entrepreneurship education for non-business students.

14:00 - 14:15 Moocing an impact: What lessons can we learn from massive online courses?

Andy Parsons and Iain Barr; Chemistry and Centre for Lifelong Learning, University of York.

The 'Exploring Everyday Chemistry' (or eeDc) course is a pioneering University of York free online course, or Mooc, launched in 2017 in response to a national drop in undergraduate chemistry applications. Over five runs of the course, over 21,000 learners from 150 countries have participated and they have completed over 294,000 steps and posted almost 17,000 comments. Targeted at pre-university students, the course allows learners to build on their subject knowledge, develop independent learning skills and gain an insight into York teaching and research. The success of eeDc as a recruitment tool led to it being used as a model by the University for establishing a suite of over 20 free Moocs, in different subject areas. These courses are targeted at pre-university students and over 170,000 learners have participated.

The York Moocs have utilised good practice in the sector and also introduced distinctive features. With the move to online learning within the university sector, what lessons can we learn from Moocs? This presentation will start with an overview of York Moocs, including why these courses were developed and how they are presented on the FutureLearn platform. We will then give an overview of course design, noting some distinctive features of eeDc. Finally, we will look at how eeDc has influenced how the author has adapted his own teaching, including online delivery of chemistry lectures, to facilitate active learning.

We hope that this talk will inspire others to explore what Moocs have to offer in creating engaging digital learning experiences.

14:15 - 14:30 Developing research skills in medical students online using an active research study

Heidi Baseler, Murat Aksoy, Alison Graham, Aziz Asghar; Hull York Medical School, University of York.

The COVID-19 pandemic and the shift to online learning presented a challenge to deliver laboratory-based teaching for medical students. Capitalising on this opportunity, we designed an innovative online teaching unit in which students became active researchers in an ongoing study on the effects of COVID-19 on memory function.

The 'COVID-19 Online Rapid Objective Neuro-Memory Assessment' (CORONA) study is a collaboration between academics in the Hull York Medical School and NHS clinical colleagues which went live in December 2020. As part of the Scholarship and Special Interest Programme for first-year medical students, tutors delivered live interactive online teaching exposing students to the entire process of conducting a research study, including experimental design and ethics, data analysis and scientific presentation and writing. Students researched the effects of COVID-19 on the nervous system, delivered online individual oral presentations, participated in data collection/analysis and wrote scientific reports on their findings.

Student feedback collected via an anonymous survey was overwhelmingly positive. Although students expressed a preference for acquiring laboratory skills in person, they found the online sessions engaging, informative and convenient, and advocated a blended learning approach in the future. Involving students in a live research study helped to facilitate online learning and successfully meet learning objectives to train medical students in the research process. This presentation would be of interest to educators seeking to engage students with research-led online teaching and learning.

15:30 - 15:45 Employability Skills in Counselling Programmes: how they are developed and exercised in our Community Counselling Center

Suzie Savvidou; Department of Psychology, CITY College, University of York Europe Campus

Good academic performance cannot guarantee effective practice. There are excellent graduates, who do not perform satisfactorily in real practice. In counselling this tendency becomes even more apparent. There have been developments in HE impacting on assessment strategies. Some of them focus on acquiring subject specific skills through experiential learning. There has also been a debate on whether practice alone can be adequate for a trainee to complete a professional training programme, if it is not assessed.

Opportunities for practicing theoretical knowledge become critical in defining not only the attractiveness of a programme, but they now constitute one of benchmark statements for accreditation bodies (e.g BPS, BACP). At CITY College, University of York Europe Campus, we operate a Community Counselling Center free of charge and open to the public. It is run by our 'MA in Counselling Psychology' students. Students complete the theoretical part, and when they meet the entry criteria, they attend a 'Foundation Course' and upon completion they start counselling external clients. Sessions with clients are videotaped (subject to consent) and trainees get feedback on their skills.

Through operating this service, the aim is twofold:
1. assess the practical skills of the students,and
2. have a positive impact to the community by offering services contributing to the well-being of people

This presentation will focus on the rationale of the programme and the procedure by which the local community can be helped.

15:45 - 16:00 Undertaking a Placement Year in the Covid-19 pandemic

Govind Panesar, Taylor Atkinson and Katy Elliot; Careers and Placements, University of York.

We are a group of placement year students working within Careers and Placements at the University of York. We are based within the Employer Engagement and Events Team, Student Development and Leadership Team and York Cares. We will be reflecting on our expectations, experiences and skills learnt throughout our placements, highlighting how the year in industry has improved our employability in the context of the Covid-19 crisis.

We initially felt that starting our year in industry during a pandemic would present setbacks, as we had to adapt to virtual working as well as transitioning from being full-time students to full-time employees at the University. Despite the ongoing uncertainty, we have still been able to integrate into the workplace culture, our individual teams and across the wider careers and placements service. We expected to develop broader skills such as communication and project management but have also had the opportunity to further develop skills such as flexibility, adaptability and resilience as a result of the current circumstances.

In our presentation we will articulate our experiences, as well as demonstrate the wider benefits of employability within higher education. All three of us work within different teams across the Careers and Placements service which has enabled us to support one another in our roles, bringing different perspectives to our discussions. We now have a wider perspective on how the university operates, the importance of employability within higher education and the positive impact that placement year students can have.

16:00 - 16:15 Graduate Attributes Badges: Verifying the Delivery of Employability Skills

A. Sotiriadou, Z. Tatsioka, N. Tsorakidis, S. Savvidou and P. Kefalas; CITY College, University of York Europe Campus.

Recommendations of our Industrial Advisory Boards and Professional Societies guided us in CITY College, University of York Europe on forming a belief that discipline specific skills and knowledge alone are not sufficient for students to become competitive and successful professionals in the demanding worldwide job market. In this presentation we focus on a set of generic and transferable skills, competencies and attributes, the Graduate Attributes (GA), which form the employability profile of all of our graduates.

The most challenging part was to verify that GAs are actually delivered and developed. Towards this direction, we developed a set of badges, which map each one of the GAs into a distinct and unique image. We demonstrate how these badges are incorporated in our programmes of study in a very visible way, by decorating each module specification, as well as every extracurricular activity.

The GAs influence decisions in the design of learning activities within or outside the curriculum and the badges assist us in determining how and when the GAs are developed and through which activities. Both staff and students are aware of how each module and each learning, teaching and assessment activity contributes to the acquisition of each one of the attributes.

Finally we discuss all those activities we have in place such as self reflection workshops, so that our students become self aware of the developed GAs in order to confidently present themselves to potential employers.
We have received commendations by PSRBs about the GA badging scheme towards employability.