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Institute of Teaching and Learning

**DR JENNIFER O'BRIEN
FLEXIBLE
LEARNING
OPPORTUNITIES
AND APPLIED
PEDAGOGY**

**ITL FELLOWSHIP 2020/21
PROJECT
REPORT**

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ITL Fellow 2020/21
**DR JENNIFER
O'BRIEN**

Jen is a Senior Lecturer and teaching and scholarship academic in Geography in the School of Environment, Education and Development. Stemming from her interdisciplinary research into sustainable development, Jen is particularly interested in the intersection between innovative pedagogy and applied research and how that can be translated into ethical, empowering learning to affect positive change.

Fellowship Student Partner Interns

FAY HULLY
EMEN HUSSAIN

FLEXIBLE LEARNING OPPORTUNITIES AND APPLIED PEDAGOGY

ITL Fellowship project

This project focused on the evaluation and development of the flexible learning opportunities enabled by the University College of Interdisciplinary Learning's (UCIL) digital learning, on exploring the potential of the "Creating a Sustainable World: 21st Century Challenges and the Sustainable Development Goals (SDGs)" course and on building the University Living Lab for Pedagogy to enhance partnership for applied learning.

Context

My work is about social and environmental justice. I believe that students are change agents and that all learners should be afforded the opportunities to excel. As we experience the increasing impacts of climatic and environmental catastrophe, and witness further examples of social injustice, we need to better deploy the 40,000 (or 540,000 if you include our alumni) strong force for change (O'Brien, 2019) that is University of Manchester students, for a better world.

Sustainability is complex: to teach that complexity we need to move beyond the traditional disciplinary, or even academic boundaries (Brandstadter and Sonntag, 2016). Our course 'Creating a Sustainable World: 21st Century Challenges and the SDGs' (CaSW) brings together over 90 voices from policy practice and the front line of sustainable development. We use Education for Sustainable Development which aims to empower, equip and inspire learners to affect change, and this UCIL course uses Technology Enhanced Learning (TEL), offering a flexible learning opportunity for students. UCIL offers further incredible opportunity as learning spaces are shaped by (for example) engineers, anthropologists, medics and mathematicians who together bring new understanding to old sustainability problems. In 2019-20, our first year of teaching, we attracted over 200 students, illustrating a clear student interest in sustainability issues (HEA, 2019). Course numbers doubled in 2020-21 representing all University Faculties. There was clear opportunity to grow the course and consider further development.

CaSW offers assessment through a living lab model. This recognises the opportunity to bring together existing student assessment with the need for research power of external organisations through applied research. I had been using this model for a few years, developing a pilot that started in 2013. Given the University's commitment to making a difference with local and global communities, an increasing sector interest in Education for Sustainable Development, and the clear success of the model based on student feedback, the time was right to revisit whether the University Living Lab could be scaled up.

Meanwhile, the experience of simultaneously teaching the same students on this Technology Enhanced Learning course and face to face suggested that students were more empowered and outspoken in an online environment than they were in the traditional classroom. I was interested in whether online learning might offer enhanced flexibility for students with working or caring commitments, and whether it was a more inclusive space as differences were flattened. A literature search suggested an empirical gap in this area. Covid has increased the need for this insight.

Objectives of the Fellowship project

The overall aim of my Fellowship was to better understand how to motivate and empower our students to affect positive change in the world whilst benefitting their student experience. This was done through three main objectives:

1. Growing the impact and reach of “Creating a Sustainable World:21st Century Challenges and the Sustainable Development Goals” (CaSW) to equip and inspire students to affect change for a better world.
 2. Extending the impact of our students for sustainability whilst enhancing external partnerships through the [University Living Lab](#) for applied learning.
 3. Investigating the opportunity presented through online flexible learning.
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Project activities

Fay (SPI) undertook work linking to another Fellow's project on **students' interest in interdisciplinary, applied research** (see Collaborative work). The findings from that work have informed the University Living Lab going forward, particularly around how staff might embed it into existing teaching programmes (for example unpacking whether students would prefer to work in teams, and so forth). As a Mathematician, this was an opportunity for Fay to grow her skill set in **qualitative data collection**, a new experience for her, so it was wonderful to co-construct this methodology. Fay then **led a recorded focus group about focus groups** with other SPIs so that they could share their experience of the method that you can't necessarily learn from a textbook.

Emen (SPI) undertook a **survey and focus groups around students' opinions of online learning**, which she found to be valuable dissertation preparation for her own studies. We would have liked the sample size and representation to have been stronger for that data (see Challenges faced) but the methodology amplified student voice, bringing both subtle nuances and some great student-recommended best practice ideas to the fore. Emen **presented the student voice at the AdvanceHE Teaching and Learning conference** in 2021, and used a new Twitter account (@Emen_19) to network around the conference, which strengthened her interest in an academic career and provided experience for her to draw upon in further development such as a successful AdvanceHE Fellowship application.

Redeveloping the existing UCIL course took place in the summers of 2020 and 2021, with new versions being developed for different cohorts during the Fellowship project:

- In September 2020 we were approached by the University's Senior Leadership Team to create a **capsule version of CaSW for Welcome Induction and Transition**. 609 undergraduates and 132 postgraduates from across the University opted to learn about sustainability, with 100% saying the course made them more aware of sustainable development and 87% of interdisciplinary postgraduates saying that they enjoyed the taster. Other UCIL 'tasters' have been made based on this experience.

- Our CaSW taster module is being **embedded in the University of Manchester's Sustainability platform (50,000 Actions)**, available to all staff and students from September 2021 to learn how to affect change around the SDGs.
- I worked with Nana Agyeman, the Postgraduate Education Officer of the Students' Union to understand whether postgraduate students might be interested in learning about mental health, enterprise and sustainability, to name but a few, around their studies – they were, and in Semester 2 2021-22 we are launching **the first interdisciplinary University wide online course for PGT students**. This is a pilot for the University to understand the value and interest, and also starts to embed sustainability learning into postgraduate studies.
- Having heard about CaSW through one of my conference presentations, in October 2020 the **Association of Commonwealth Universities (ACU)** approached Professor Dame Nancy Rothwell asking if we could teach their students about the SDGs. In September 2021 we are delivering a bespoke unit for 30 Queen Elizabeth Commonwealth Scholars from across the world. This is significant in our approach of using the SDGs as pedagogy (detailed in 'Collaborative Work').

Meanwhile, the University Living Lab bubbled continuously, both as a **practical site to build and as a pedagogy**. The site was a physical challenge and its establishment hasn't entirely solved the administrative burden, but I am happy with the result and it certainly helps to have a virtual space to point to. We currently have **around 150 projects for students to undertake** which should increase in number, range and geographic scope. I presented the University Living Lab concept at a number of pedagogic fora (see Outputs for detail), and it has been **referenced as good practice by AdvanceHE and QAA in relation to Education for Sustainable Development**.

Challenges faced

Like all Fellowships, my work was hugely impacted by Covid, resulting in it being more reactive than ideal, especially whilst also being Director of Teaching and Learning for Geography - and Mum. I am hugely grateful for the input and patience of my two student partners, Fay and Emen, who had stark exposure to working with a stressed academic. Beyond Covid, we also faced a few challenges in pursuing our project activities:

- Collecting data at all, let alone data that is representative of the population, is always challenging. For understandable reasons - including exams, limited availability and the number of surveys at the time - we struggled to access large numbers of students for Emen's data collection.
- The University Living Lab is a huge project which had massive amounts of unforeseen preparation work that I hadn't scheduled. It is essentially an online database, so ultimately the build of the platform was actually a smaller job than, for example, individually checking through and then coding over 150 projects. As a result, the site went live around 6 months later than planned. The challenge now is to realise the potential of that project.
- Preparing online courses is a challenge which required a shift in my approach to teaching. I am normally a responsive, enquiry based teacher; if something significant happened in the world my students and I would discuss it together. In the UCIL model of TEL, all material has to be ready and physically built on Blackboard for when the course goes live. Writing six versions of this huge course this summer, on top of my day job, was a real challenge.

Student partnership

All of the SPIs that I was fortunate to work with were wonderful. In addition to Emen and Fay, I worked with members of the wider SPI team to create our focus group about focus groups, and I had some support from Hamdan and Sanja for the Living Lab.

Fay and Emen co-created this fellowship and its impact: it couldn't have happened without them. Their impact on me, however, was much broader: working with student partners reframed my day to day practice as Director of Teaching and Learning for Geography during the pandemic. I have always worked with our Student Reps, but this experience shifted my approach to addressing problems raised by them to seeing Reps as vital partners to co-construct a path through the unknown of learning in a pandemic. As Fay and Emen were in other Schools and Faculties, I also learned a great deal about different policies and practices across the University, and the student perspective of these, which I couldn't have learned through formal meetings.

Collaborative work

The collaborative reach of our work is extensive. ITL Fellow John Owen generously gave his time to explain his micro sprint concept, the core of which became instrumental in working with my SPIs and students in general. At the start of the Fellowship Fay and I worked with Prof David Schultz and SPI Lucia due to our overlapping interest in interdisciplinary applied research projects.

We are partnered with 54 organisations ranging from charities to councils to private business across the globe who have directly or indirectly contributed to the [University Living Lab](#). The reach of our partnership in this area will grow and external organisations from across the globe are approaching me asking to be part of the lab.

Our partners across CaSW have grown to over 90, representing 54 academics from all Faculties of the University of Manchester, eight of our research institutes and nine global universities. We partnered with non-governmental organisations, counsellors, activists, cultural institutes and think tanks. Our team also includes a learning designer, two learning and assessment developers and one filmmaker; the Students Union; University Senior Leadership and Estates management; and five Equity and Merit Scholars. A number of alumni are part of our team, including Rose Mary Nakame who set up [REMI East Africa](#). Our collaboration includes 16 Graduate Teaching Assistants who delivered our course and two incredible administrative colleagues.

This collaborative approach underpins a theory I am developing which presents the SDGs as pedagogy. The SDGs are framed in principles of leaving nobody behind, respecting knowledges and working together in partnership to affect change. Moving beyond the SDGs as a tick box exercise, these principles underpin the teaching of CaSW. The interdisciplinarity of our students offers us a wealth of knowledge that could genuinely offer solutions to problems; working together, all students become teachers, and are offered opportunities to shape the course through their learning. At each stage of the course students are invited to feedback offering case study or literature examples.

Over two years of delivering CaSW we now have over 450 teachers who have contributed to the course. Our students have been inspired to make impact; Alexis travelled to Ghana to undertake the solar project that he wrote for his 10 credit course assessment, for example. Seeing our learners as potential teachers is why the partnership with the ACU and our global postgraduate students offers such an exciting opportunity as they co-construct future iterations of the course.

Outputs

Project outputs:

- A focus group about focus groups, created and led by SPIs, to capture the nuances of their experience of using focus groups as a method, for the benefit of future SPIs
- University Living Lab platform, which has been referenced as a Case Study of Good Practice by AdvanceHE
- UCIL course and University Living Lab has been referenced by Commonwealth Sustainable Cities as best practice
- CaSW Taster Unit based on our Welcome, Induction and Transition unit, which was offered to all incoming taught students and inspired the development of two other taster units
- In partnership with Students' Union, development of a CaSW postgraduate unit, to be launched in Semester 2 of 2021-22
- CaSW was instrumental in the success of the University in Times Higher Education Rankings for SDGs which ranked us first in the world
- As a result of our partnership with the Association of Commonwealth Universities we are delivering a postgraduate version of CaSW to 30 of their Queen Elizabeth Scholars in September 2021

Publications

- IN PRESS an article commissioned by the Environmental Association of Universities and Colleges about the Living Lab
- Thew, H., Graves, C., Reay, D., Smith, S., Petersen, K., Bomberg, E., Boxley, S., Causley, J., Congreve, A., Cross, I., Dunk, R., Dunlop, L., Facer, K., Gamage, K. A. A., Greenhalgh, C., Greig, A., Kiamba, L., Kinakh, V., Kioupi, V., Lee, M., Klapper, R., Kurul, E., Marshall-Cook, J., McGivern, A., Mörk, J., Nijman, V., O'Brien, J., Preist, C., Price, E., Samangoei, M., Schrodtt, F., Sharmina, M., Toney, J., Walsh, C., Walsh, T., Wood, R. Wood, P., and Worsfold, N.T. (2021). Mainstreaming climate education in Higher Education Institutions. COP26 Universities Network Working Paper: https://www.gla.ac.uk/media/Media_814664_smxx.pdf

- Cook-Sather, A., Slates, S., Acai, A., Baxter, J., Bond, R., Lowe, T., Zurcher, H., O'Brien, J., Tavares, V., Lewe, M.-T., Khan, A., Poole, H., Smith, A. C., Iqbal, M. Z., Arm, K., Escobar Lema, J. E. ., Groening, J., Garg, K., Bello Rinaudo, N. L., Crisp, N., Mukherji, M. ., Addy, T., Lewis, L. M., Vayada, P., Zhang, M., Liang, Y. (Scott) ., Rodgers, H. B., Judd, M.-M. ., Szucs, B., Thompson, D., Schmidt, S. ., Semos, I., Watchman Smith, N., Pfeifer-Luckett, R. ., Bala, N., Chia, M.-D., Kochhar-Lindgren, G. ., Leung, L. ., Lys, I., Matthews, K., Zou, T., & Lewis, R. (2021). Diversifying students-as-partners participants and practices. *International Journal for Students As Partners*, 5(1), 146–159. <https://doi.org/10.15173/ijasp.v5i1.4627>
- O'Brien, J., Evans, J., Karvonen, A., Millard, L., Wendler, J., Blakey, J. and Jones, R. (2021). Brokering applied research between students and organisations to affect change for sustainable development. COP26 Universities Network Case Study. https://www.gla.ac.uk/media/Media_814636_smxx.pdf

Presentations

- Invited presentation for European Public Health Week May 2020 with Dr. Julian Skyrme
- Education for sustainable development: Empowering change through online learning and the SDGs Advance HE Teaching and Learning Conference, July 2020
- Creating a Sustainable World: Embedding sustainable sustainability learning University of Leeds Sustainability Network, November 2020
- Manchester Museum's Brave New World workshop, November 2020
- Invited presentation to represent the University at the Social Responsibility University Network, Pretoria, January 2021
- Invited presentation to the Dean's Core Brief, to discuss *Creating a Sustainable World* as an example of Faculty of Humanities teaching best practice January 2021
- Invited presentation 'Co-Constructing Sustainability: Online, interdisciplinarity and the Sustainable Development Goals' Interdisciplinary Learning and Teaching Conference, April 2021
- Invited presentation to the Earth Knowledge Action Network, 'Using the SDGs in interdisciplinary partnership to affect positive change', May 2021

- Two presentations at Advance HE Teaching and Learning conference July 2021:
 - one led by Emen Hussain, project SPI, about online learning - 'Post Covid, does technology enhanced learning offer a more equitable and empowering learning space for students than the traditional classroom? A student led, students' view' (great write up provided by Emen)
 - the other about the University Living Lab - 'A 40,000 strong force for sustainable development: affecting change whilst enhancing employability through applied research and the Sustainable Development Goals'
 - Multimedia takeovers for the University of Manchester Community Festival (June 2021) and for British Commonwealth recruitment (June 2021)
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Impact

I was most proud of this work when Emen presented at the AdvanceHE summer conference. Her building an academic profile whilst studying at second year is a powerful illustration of impact.

Student feedback on both the University Living Lab and the UCIL courses continues to be excellent. We are beginning to receive positive feedback from external organisations of the impact the students' research is having on sustainable development, which we want to better capture as more robustly measurable impact as we move forward.

An external partnership at request of the President is an example of impact; we need to deliver on that project and explore that partnership further. We are also beginning to receive research projects for the Living Lab from external organisations who have seen the example at conferences, or on best practice platforms, rather than being personal contacts. The project keeps growing.

Reflection

I think the project has gone well. I measure success in terms of impact, change and growth of the project, particularly the Living Lab; in addition to the outputs and invited presentations listed above, we won a University of Manchester Making a Difference Award for Outstanding Teaching Innovation in Social Responsibility. All things considered, we achieved a lot.

Next steps

The University Living Lab has so much global potential that we need to realise. It could be embedded throughout the University of Manchester's teaching and learning, and could be a significant way to strengthen our partnerships with communities near and far. The platform goes a long way to close the feedback loop and reduce the admin burden, both of which were challenging when this was a paper-based exercise, and we now need to focus on growing a broad range of research projects.

With six versions of CaSW now running, we need to establish how to ensure the day to day running of this in a way that also enables us to develop this further and better realise its full potential, such as maximising the impact around the pedagogy and the student inputs and outputs from the course.

This is the start of a sustainability education at the University of Manchester which could make an enormous impact. Our students could make a massive impact on the world if properly equipped, inspired and empowered.

Dr Jennifer O'Brien
September 2021
