Exploring university sustainability practices during a Covid-19 summer: staff and student experiences and findings

Hilda Mulrooney, Kingston University London, hilda.mulrooney@kingston.ac.uk
Lisa Chevallereau, Kingston University London, k1805397@kingston.ac.uk

Summary
During the Covid-19 pandemic in the summer of 2020, a collaborative staff-student research project was carried out. This paper describes both the findings of the project, and the experience of undertaking research from the student and staff perspectives. The project was funded by an internship (paid placement for eight weeks), offered on a competitive basis by Kingston University to second year undergraduate students within the Faculty of Science, Engineering and Computing (SEC). The project aimed to explore sustainability practices and policies of the university and was carried out online using the university website as the main source of information. Academic staff in two faculties were invited to complete an online questionnaire to establish their views and practices on including sustainability in their teaching, and a focus group held with four postgraduate students on a MA in Sustainable Design explored their opinions on sustainability in education and future employment.

Description of project
Providing students with the knowledge, skills, experiences, attributes and attitudes to successfully transition between higher education and postgraduate life is an important function of higher education, ideally embedded throughout the curriculum to benefit all students (HEA, 2016). Employers need work-ready graduates with subject-specific knowledge and a range of transferable skills (Harvey, 2000). Simultaneously, the stakes are higher for students, with tuition fees and an uncertain labour market (Clarke, 2018). Co-curricular activities provide opportunities to bridge the gap between knowledge and its application (Winter et al, 2015). They are usually voluntary, extracurricular but complementary (HEA, 2016). The summer internship programme at Kingston University is one such opportunity. Offered to students after their second year of undergraduate study on a competitive basis, interns are paid to work on specific projects for eight weeks, supervised by an academic staff member. Places are limited and students are selected using an application and interview process. Therefore, they must be motivated both to apply and to maximise the gains from the internship. This paper describes the experience of student engagement in an internship exploring sustainability at the university, over the summer of 2020, throughout the Covid-19 pandemic. Through the lens of the internship, the motivations of the student, the nature of engagement with the project, and the outputs which have resulted from the project are considered, in relation to key graduate attributes.

Why sustainability?
Education for sustainable development is increasingly recognised as essential within higher education (QAA and Advance HE, 2021), and higher education institutions (HEIs) are seen as role models within the community. In addition, a recent survey by the NUS suggests that 93% of students want knowledge and skills to address sustainability challenges to be included in their programmes (NUS, 2019). Universities have a fundamental role in educating for the future, since their influence on students

is long-lasting (Sabine, 2013). As climate change will become a greater challenge when students enter the workplace, it is essential for future leadership and industry development that current students incorporate environmental awareness into their thinking (Adams, 2013). A broad focus on sustainability was adopted for this project, in line with the three core elements identified by the UN, namely economic growth, social inclusion and environmental protection (UN, 2019), with reference to the Sustainable Development Goals (SDGs) (UN, 2015).

By mid-April 2020, an estimated 94% of learners enrolled in 200 countries were affected by educational establishment closures (UN, 2020). Therefore, data were collected using a tripartite online approach.

Project aims were to:

1. identify current sustainability practices of the university primarily using the institutional website & interviews with key staff.
2. ascertain staff views of the importance of including sustainability within their teaching using an online questionnaire to collect qualitative and quantitative data (Appendix 1).
3. obtain the views of students on sustainability programmes about the importance of sustainability within education & future employment, using an online focus group.

To achieve these, a knowledge network of key groups/individuals in relation to sustainability within the university was developed, using a snowball technique. Initially individuals identified through personal knowledge of the researchers and from the university website were contacted, and they then suggested others, thus building a network of contacts.

Enabling Partnership

A partnership approach was explicit throughout. All students who applied for the summer internship were asked to explain their interest in the project as part of the selection process, outlining how they would achieve its goals. From these ideas, the project plan was developed.

In terms of specific tasks, the ethics application was completed by the staff partner. Resources, such as the staff questionnaire and focus group guide for the student focus groups, were co-developed. Together, a list of key individuals and groups to contact was developed using information from the website and personal knowledge. All participants were asked to suggest others whose work or interests were relevant to the project, so that a web of key contacts was constructed. The student partner led on all aspects of data collection, exploring the website for sustainability groups, practices or policies. The staff partner completed the interim project progress report, while the final report and ongoing blog posts were written by the student partner, with mutually agreed content.

This division of labour worked very well, but absolutely required a student partner who was strongly motivated to carry out the work, particularly given the unusual circumstances. Posthoc exploration of the student partner motivation for this project was carried out using the Academic Motivation Scale (AMS; Vallerand et al, 1992), from which the self-determination index score was calculated (Vallerand et al, 2008).

In addition, a bespoke questionnaire on the specific hopes of the students, the drive to take part, and the impact of Covid-19 on the project was completed using Microsoft Teams.

Findings of the project

Website sustainability information
Several examples of excellent practice were found. Reduced meat consumption was encouraged, while removal of parking spaces and provision of cycle and e-cycle docking stations encouraged active travel. However, uncovering relevant information online was very challenging. Most information was obtained from interviewees via the knowledge network constructed. A key recommendation of the project was ensuring that sustainability information was far more accessible and visible, located in a central online hub. This is especially pertinent since many students evaluate institutional sustainability before applying (Nuwer, 2014).

Staff views on including sustainability in their teaching
A total of 35 staff across 15 disciplines in 2 faculties completed the online questionnaire (see Appendix 1). Key findings were that 37.4% did not engage with the sustainable development goals (SDGs) in their teaching. Two thirds (66%) of teaching in sustainability was applied through physical practice (i.e. assignments/ practicals/ field trips), and 65.7% of staff agreed/strongly agreed that their modules engage with critical thinking in the context of sustainability.

With reference to the statements on sustainability in education, the majority (80%) agreed/strongly agreed that sustainability was applicable to their discipline (Table 1). However, 17.1% disagreed/strongly disagreed that they would feel confident in teaching sustainability. Almost half (43%), did not have a departmental staff member responsible for integrating sustainability into the curriculum, while 23% were unsure about this. With regards to training on education for sustainability, 89% said they had not received training but 76% would like to.

Table 1: Responses of 35 academic staff to statements about sustainability in their teaching, expressed as numbers (%) of respondents

Statement	Agree/strongly agree	Neither agree nor disagree	Disagree/strongly disagree
Teaching sustainability is applicable to my discipline	28 (80%)	6 (17.1%)	1 (2.9%)
I would feel confident teaching about sustainability in my module(s)	25 (71.5%)	4 (11.4%)	6 (17.1%)
I think students would be motivated to learn about sustainability issues in their modules	31 (88.6%)	3 (8.6%)	1 (2.9%)
I feel confident that my students would engage in practical work (assignments, practicals and field trips) on sustainable development	26 (74.3%)	7 (20.0%)	2 (5.7%)
My students would be more critically aware of sustainable issues within the	27 (77.3%)	7 (20.0%)	1 (2.9%)

discipline if there was more teaching on sustainable development			
I think my module(s) engages with critical thinking	33 (94.3%)	2 (5.7%)	0 (0.0%)
I think my module(s) engages with critical thinking in the context of sustainability	23 (65.7%)	6 (17.1%)	6 (17.1%)

Thirty three respondents answered the qualitative questions. Basic thematic analysis identified three major themes, with subthemes. These are illustrated in Table 2.

Table 2: Key themes and subthemes identified from qualitative questionnaire data, expressed as number and % of responses (n=33)

Theme	Sub themes	Illustrative quotes
Teaching about the current state of knowledge surrounding sustainability and its issues	Understanding the meaning and importance of sustainability and contesting its definition (n=3, 9.7%)	*"Students are asked to critically reflect on the varied meanings of sustainability"*
	Considering the scale of sustainability (n=2, 6.5%)	*"Long term vs Short term"*
	Teaching about environmental Impacts (n=11, 35.5%)	*"environmental impact of human activities (pollution by chemicals and pharmaceuticals)."*
Teaching about solutions and actions for change	Reducing consumption (n=6, 19.4%)	*"Discussion on alternatives for single-use plastics, awareness of starting materials for drug development and additional potential sources"*
	Physical actions (n=7, 22.6%)	*"experiment design that favours the use of green chemistry alternatives"*
	Conservation (n =3, 9.7%)	*"embedded in all aspects of historic building conservation in terms of social, economic and environmental"*
	Influencing student behaviour (n=10, 32.3%)	*"by engaging in sustainable practice in our own everyday behaviour"*
	Community involvement (n =4, 12.9%)	*"how to engage decision makers on the topic"*
	Management (n=4, 12,9%)	*"land and water management"*
Recognising the social SDGs	Social SDGs (n =11, 35.5%)	*"concerns about demographic issues and encouraging them to be critical actors of change. Thinking about homelessness for example, the stigma of free school meals, domestic violence"*

Student views on inclusion of sustainability in education
Four MA Sustainable Design students were interviewed about the critical nature of implementing sustainable education. Whilst all agreed that sustainability should be ''*something in the curriculum which you cannot proceed without"*, opinions varied about how this should be delivered. Overall, the discussion suggested that sustainability should be taught *"in a compulsory environment"* (i.e. schools). At university, they felt autonomy to pursue subject specialisms must be respected, with sustainability offered as an optional module.

Reflections on the project

Student partner motivation & feedback
High levels of intrinsic motivation were found. A very high score of +18 was obtained using the self-determination index (scores can range from -18 to +18). Participation in the project was 'very important' and helped the student cope with the first lockdown whilst gaining important skills:

''It gave me something to focus on during the first lockdown….It has had a positive impact on my desk-based research skills".

Importantly, at a very difficult time, taking part increased her sense of belonging at the university: *''I have felt more respected by staff in my department''*

Student perspective
Although originally aiming to address climate change issues through physical aspects of the university such as green space, the Covid-19 restrictions acted as a barrier to accessing both sites and stakeholders. To overcome this, a broader approach to sustainability was embraced during the evaluation of literature. As a result, a focus on inter-disciplinary education was identified and led to a group interview with students already invested in a sustainability course encompassing it in its practical and theoretical forms. Their inputs were highly valued as much of the current literature evaluates perspectives of students placed into one-time scenarios of sustainable education. This was an important benefit of the research in its contribution to academia. The initial barrier therefore contributed to a more holistic approach to understanding sustainability and its forms.

Without Covid-19 restrictions, conversations with key individuals could have taken on a different form. In addition to speaking with people individually, having representatives of each group present together would have led to more detailed discussions and debates. Speaking to people individually identified many contradictions as well as challenges in roles and experiences at the university. Therefore, an in-person meeting directed by both the student and staff partners would have enabled an exchange of views across institutional sectors as well as initiating communication between departments. The hope would be that this discussion acts as the beginning of many more open debates and conversations, perhaps held monthly, incorporating additional stakeholders.

Throughout this project, there was effective communication between the staff and student partner. Not only did both sets of partners proactively work together answering

questions and tackling challenges arising at the time during regular updates, but the student partner was also consistently stimulated to think about the future of this project and its contribution to the field. Prior to the internship holding interviews with staff would have been intimidating for the student partner, but it became a pleasure talking with stakeholders. This was particularly the case since the stakeholder inputs contributed not only to the project but also to the potential of findings being taken higher up in the institution and influencing further work, including a policy on sustainability.

The learning and achievements at all stages of this project contributed to university work outside the internship, notably the dissertation. The necessity to rely on desk-based approaches due to the pandemic was less intimidating in relation to research for the dissertation than would otherwise have been the case, and confidence gained from the production of meaningful research during the internship benefitted the final year experience.

Staff perspective
Social distancing was a major potential barrier. This changed the data collection plan but also influenced team communications. Both partners wanted the project to go ahead despite these national restrictions. Given that, changing the data collection plan was reasonably straightforward. What could have been a barrier became a benefit:

> *''Covid meant that the project had to change to a desk-based project and changed the research to focus much more on secondary data than planned - yet this was then found to be a positive impact on the findings as it highlighted the inaccessibility of information and potential impact on the range of stakeholders present at the university''* [student partner qualitative feedback]

More important was the inability to meet physically. The project partners were in different disciplines and did not know each other, having only met face-to-face at the interview. Developing a supportive constructive relationship therefore became more difficult. Project meetings were held online more frequently than usual (approximately every fortnight with regular email contact). Cameras were enabled so that partners could see each other, to help build relationships. This approach worked well: *'having the interaction with my supervisor was great'* [student partner qualitative feedback]

In previous projects, physical presence on campus helped foster creativity through serendipitous meetings and conversations. This was impossible due to the pandemic. Perhaps more staff and students would have participated face-to-face since it is easier to reject an invitation to participate online than in person. The numbers of participants were lower than hoped, limiting generalisability of the conclusions. However, the interrogation of the website identified a lack of visibility of institutional approaches to sustainability. This might have been missed if the original data collection plan (on campus) had been possible. For those who never visit the campus, the only information available to them is online; only some will visit the campus whereas almost everyone will visit the website at some stage.

The project would not have worked without a highly motivated student partner. Many students have reported feeling a lack of motivation online. This project was carried out during the first lockdown, an advantage since it was at that stage assumed that online

working was a temporary glitch. On the other hand, dealing with uncertainty affecting every aspect of life was very difficult and cannot be understated. For both partners, having the work to focus on helped cope with the pandemic.

Concluding remarks, follow up and future plans

The majority of staff in the survey agreed that including sustainability in education was important, but a clear need for training was identified. Although many instances of good practice were identified, a major recommendation was the establishment of a central hub, ensuring accessibility and high visibility of university practices in relation to sustainability, many of which were excellent. This would also enable those with an interest in sustainability to find each other and to establish a community of practice in sustainability.

Since the project was undertaken, substantial work on sustainability has continued. The final project report recommendations were shared with project stakeholders and the wider university community. A central sustainability hub is now located on the website enabling identification of relevant policies and practices. The institution has signed up to the Green Impact Award Scheme (http://greenimpact.nus.org.uk/). A cross-disciplinary sustainability hackathon organised by Enterprise staff took place for academic staff and students in February; 33 students and 19 staff participated in real-world problem-solving scenarios related to sustainability:

> *"It was a useful exercise which generated a cross-university discussion about sustainability and brought together people with shared interests and varied skills. Some of the ideas might be introduced into the University's sustainability strategy"*.

Both partners participated: the student partner gave the keynote introduction to the hackathon and the staff partner helped to organise and facilitate it. A sustainability community of practice (COP) has been established, and an inaugural webinar on embedding sustainability and climate change into teaching and learning was held in April. The staff partner is a member of the COP and took part in the webinar, presenting current work on student perceptions of sustainability within nutrition education. Finally, work on a new institutional sustainability strategy is underway.

References

Adams, C. (2013). Sustainability reporting and performance management in universities: Challenges and benefits. *Sustainability Accounting, Management and Policy Journal*, *4(3)3, 384-392*. https://doi.org/10.1108/SAMPJ-12-2012-0044

Clarke, M. (2018). Rethinking graduate employability: the role of capital, individual attributes and context. *Studies in Higher Education, 43(11), 1923-1937*. https://doi.org/10.1080/03075079.2017.1294152

Harvey, L. (2000). New Realities: The Relationship Between Higher Education and Employment. *Tertiary Education & Management, 6(1), 3–17*. https://doi.org.uk/10.1080/13583883.2000.9967007

Higher Education Academy (2016). *Framework for embedding employability within higher education.* https://www.heacademy.ac.uk/system/files/downloads/embedding-employability-in-he.pdf (accessed 20/03/2021)

National Union of Students (2019). *Sustainability in Education 2018-19* (Fourth report). https://www.sustainabilityexchange.ac.uk/files/sustainability_in_education_-_state_of_the_sector_report_2018.pdf (accessed 23/04/21)

Nuwer, R. (2014, July 22). Do students really choose colleges based on how green they are?. The Guardian. https://www.theguardian.com/sustainable-business/2014/jul/22/green-colleges-students-decisions-environment (accessed 21/04/21)

Quality Assurance Agency for Higher Education & Advance HE (2021). *Education for Sustainable Development Guidance*. https://www.advance-he.ac.uk/knowledge-hub/education-sustainable-development-guidance (accessed 22/04/21)

Sabine, S. (2013). The role of universities in fostering sustainable development at the regional level. *Journal of Cleaner Production, 48, 74-84.* https://doi.org.uk/10.1016/j.jclepro.2013.01.029

United Nations (2020). *Education during COVID-19 and beyond* (Policy Briefing). https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2020/08/sg_policy_brief_covid-19_and_education_august_2020.pdf (accessed 25/03/21)

United Nations (2019). *The Future is Now. Science for achieving sustainable development.* https://sustainabledevelopment.un.org/content/documents/24797GSDR_report_2019.pdf (accessed 26/07/21)

United Nations (2015). *Transforming our world: the 2030 Agenda for Sustainable Development. Resolution.* https://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E (accessed 26/07/21)

Vallerand, R.J., Pelletier, L.G., Blais, M.R., Briere, N.M., Senecal, C. & Vallieres, E.F. (1992). The Academic Motivation Scale: a measure of intrinsic, extrinsic and amotivation in education. *Educational and Psychological Measurement, 52(4), 1003–1017*. https://doi.org/10.1177/0013164492052004025

Vallerand, R. J., Pelletier, L. G., & Koestner, R. (2008). Reflections on self-determination theory. Canadian Psychology, 49, 257e262. https://doi.org/10.1037/a0012804.

Winter, J., Sterling, S., & Cotton, D. (2015). 7 Steps to: Embedding Sustainability into Student Learning. Education Development, Plymouth University. https://www.plymouth.ac.uk/uploads/production/document/path/3/3409/595997_2613

96_7_Steps_to_Embedding_Sustainability_into_Student_Learning_1214_BOLD.pdf (accessed 19/03/2021)

Appendix

This survey is part of an internship looking at sustainability at Kingston University. The outcome of this research project will be a report evaluating current efforts and outlining advice regarding future changes that the university can apply. We would really appreciate if you could spare five minutes to complete this survey which focuses on the inclusion of sustainability in teaching, thank you in advance.

Part 1: About your teaching

1. **What level of course do you teach? (click all that apply)**
- ☐ Undergraduate
- ☐ Post graduate

2. **How many modules do you teach on?**
- ☐ 1 -3
- ☐ 4-6
- ☐ 7 or more

3. **Into which discipline do the majority of your modules fall?**
- ☐ Architecture and landscape
- ☐ Art and design
- ☐ Building and construction
- ☐ Business
- ☐ Chemistry, Pharmacy and Pharmaceutical sciences
- ☐ Computing
- ☐ Creative industries
- ☐ Creative writing
- ☐ Criminology
- ☐ Drama, Dance and Music
- ☐ Economics
- ☐ Education
- ☐ Engineering
- ☐ English
- ☐ Environment
- ☐ Film and Media
- ☐ Geography
- ☐ Health and social care sciences
- ☐ Humanities
- ☐ Journalism and Publishing
- ☐ Language and literature
- ☐ Law
- ☐ Life sciences
- ☐ Management, marketing and advertising
- ☐ Mathematics and data science
- ☐ Music
- ☐ Nursing and midwifery
- ☐ Politics, Human Rights and International Relations
- ☐ Psychology
- ☐ Social work and social care
- ☐ Sociology
- ☐ Sport science and Nutrition
- ☐ Surveying

Part 2: About sustainability in your teaching

4. **To what extent does your teaching on each module engage with the global Sustainable Development Goals?**
   For this question, please answer for **each** module you teach on, considering all of the development goals below. Please include the teaching, assignments and fieldtrips on the modules.

	No, not at all	Yes, but to a low extent - sustainability is mentioned briefly	Yes, to some extent – sustainability is integrated in a number of lectures and or assignments	Yes, to a great extent – sustainability is part of the curriculum on which lectures and assignments are heavily based
Module 1				
Module 2				
Module 3				
Module 4				
Module 5				
Module 6				
Module 7				
Module 8				
Module 9				
Module 10				

5. **If you answered 'yes' for one or more module, is some of this teaching applied through physical practice? (e.g. fieldtrips, practicals, assignments)**

- ☐ Yes
- ☐ No

6. **Please complete the following statements relating to the integration of sustainable teaching.**

STATEMENTS	**Strongly agree**	**Agree**	**Neither agree nor disagree**	**Disagree**	**Strongly disagree**
Teaching sustainability is applicable to my discipline					

I would feel confident teaching about sustainability in my module(s)					
I think students would be motivated to learn about sustainability issues in their modules					
I feel confident that my students would engage in practical work (assignments, practicals and fieldtrips) on sustainable development					
My students would be more critically aware of sustainable issues within the discipline if there was more teaching on sustainable development					
I think my module(s) engages with critical thinking					
I think my module(s) engages with critical thinking in the context of sustainability					

7. **If you answered 'disagree' or 'strongly disagree' to the statement: 'Teaching sustainability is applicable to my discipline', please give a reason:**

---

8. **Do you feel encouraged by senior leadership (e.g. SLT, Deans, Vice-Chancellor) at Kingston University to include sustainable principles into your modules?**

- Yes
- No

9. **Is there a member of staff in your department/school/faculty who is in charge of integrating sustainability into the curriculum?**

- Yes
- No
- Not sure

10. **Do lectures, assignments, or fieldtrips in your module/s engage with sustainable development in the local region? (e.g. through civic engagement, local projects, volunteering)**

- Yes
- No

- Not sure

11. If you answered 'yes' to question 10, is research completed on the follow up of these involvements?

- Yes, all the time
- Most of the time
- Sometimes
- Rarely
- Not at all
- I don't know

12. Have you received training from Kingston University on teaching sustainability?

- Yes
- No

13. If not, would you like to receive training on sustainability and integrating it into your teaching?

- Yes
- No
- Not sure

14. What do you think sustainability would look like in your discipline?

---

15. Please add any additional comments here.

Thank you for completing this survey