

Student disengagement in Sustainability at UCL

Exploring differences in sustainability engagement between STEM and Humanity students

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Introduction

The way in which sustainability is integrated into higher education can have an effect on student engagement across disciplines. Previous research suggests that STEM (Science, Technology, Engineering, and Maths) students conceptualise sustainability in environmentally-centric ways whilst humanities students favour a community focused and system-change approach due to their respective courses (Fisher and McAdams 2015). We explored if this difference between disciplines could be observed in UCL students' engagement in sustainability.

Method

- We recorded responses from 100 UCL students to an online survey distributed via social media and in person. After exclusions, 14 postgraduate and 82 undergraduate students (n=96) were included in the sample. (STEM n=38, Humanity n=58).
- We tested whether there was a statistical difference in engagement comparing **rating of curriculum engagement in sustainability, lifestyle sustainability indicators, and participation in UCL-advertised sustainability initiatives** between the two groups.
- Lifestyle sustainability indicators included **primary transport method, meat consumption, and volunteering** which aligned with established national sustainability lifestyle frameworks (Chapman and Shigetomi 2018).
- Responses were recorded on a scale from 1 (not sustainable) to 4 (very sustainable).
- We tested if students' ratings of sustainability in their curriculum was correlated with overall participation in sustainability initiatives.
- Study was pre-registered on the Open Science Framework and can be replicated by other researchers: <https://osf.io/zbdp6/>

Figure 1: Meat consumption ranking by discipline

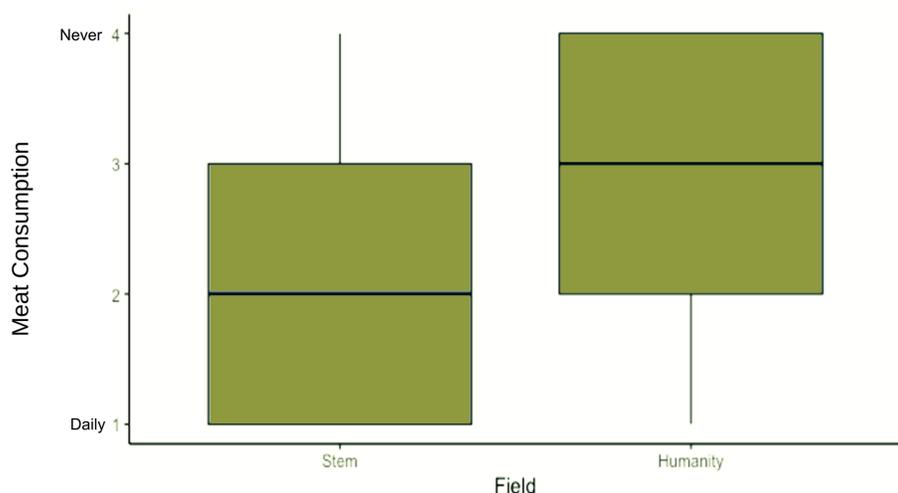
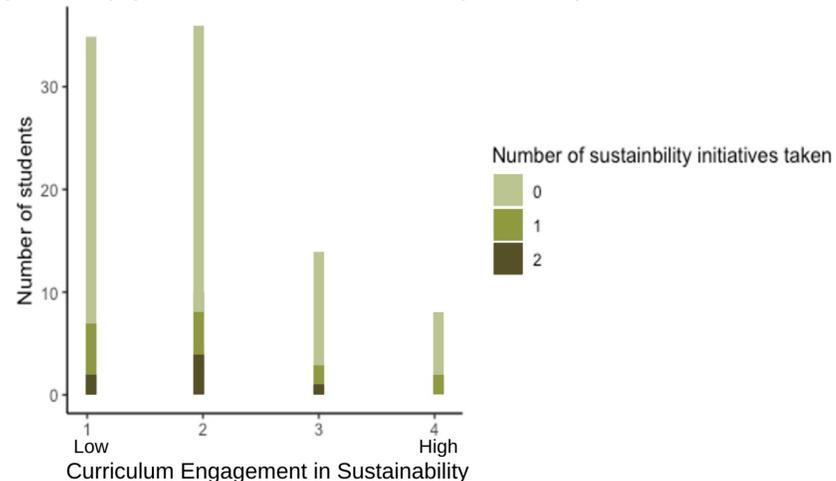


Figure 2: Engagement in Initiatives compared against rating of Curriculum Sustainability



Results

- Overall student participation in sustainability was low** – 74% reported not taking part in any sustainability-related initiative or society.
- There was no statistically significant difference in curriculum rating nor number of sustainability initiatives between STEM and humanity students** – the median engagement with initiatives for both groups was 0 (p=0.26) and the curriculum sustainability median was 2 (p=0.48).
- There was no statistically significant difference in sustainability lifestyle indicators between both groups** - highest observed non statistically significant difference was in meat consumption. Humanities consumed less meat than STEM (Figure 1) - (p=0.17).
- There was no significant difference in sustainability between undergraduates and postgraduates** - (P=0.43).
- Rating of curriculum sustainability was not significantly correlated with participation in initiatives (Figure 2)** – there was no observed relationship - (p=0.91).

Discussion

Significant differences between STEM and humanity students' engagement with sustainability were not strongly observed. However, our sample may not be representative as we analysed only 96 responses compared to the estimated 42,000 students at UCL, and the number of postgraduates was lacking in our sample. Additionally, courses could not be straightforwardly categorised as STEM or humanity, so a more complex analysis of disciplines may have produced more nuanced results. We suggest the lack of observed differences was due to the overall lack of student engagement in sustainability. Finally, we recommend UCL better advertise sustainability initiatives on campus and further embed them into all curriculums for more possible participation.

