

AIM OF ACTIVITY

In this activity, students research and map different infrastructures on their university campus, to think about how sustain-able they are and how to propose improvements to the university's senior management. Theoretically, the activity was framed through a seminar discussion of infrastructures as socio-technical systems and how their materiality, (in)visibility and accessibility are shaped by privileges and exclusions. Through the activity, I extended students' thinking to incorporate issues of sustain-ability.

I explain to students that the idea of sustain-ability comes from design scholar Tony Fry, for whom the hyphen makes explicit the need for things and actions to have the ability to sustain life in all its diversity and interdependence. I also use the term to critique mainstream ideas around sustainable development, which I discuss in the class preceding this activity.

I undertake this activity with students in my third year International Development module on Urban Futures; it would work in any social science class focusing on urban challenges or with engineering and design students.

ACTIVITY OUTLINE

1. Study an infrastructure of your choice (preactivity)

To prepare for the activity, students had selected one of four infrastructures - water, transport, food, energy - the week before and undertaken preliminary research on how these are manifest on Sussex campus. They had also familiarized themselves with the university's sustainability policy.

2. Explain workshop objective

I explained that the aim of the activity was to bring knowledge about infrastructures home to students - all of whom had lived on campus during their first year and in subsequent years were on campus almost daily for classes - in experiential and material ways. Students were to walk across campus in small groups, following a route they had mapped out on large campus maps I had given them, and to mark down all instances of their chosen infrastructure they could find. Because this activity involved a self-guided, outdoor learning element, it was important to give students clear guidelines, in terms of times and activities, to keep them on track.

ACTIVITY OUTLINE

3. Campus walking discussion

In the classroom, groups of 3 - 4 students who had chosen the same infrastructure, got together to decided on the route they would. They then set off on a 25 minute walking discussion, using their maps to track their route and mark any physical manifestations of their infrastructure. In addition, they answered questions on a worksheet, also incorporating learnings from the pre-activity:

- In what state are the infrastructures?
- How are people interacting with them?
- How sustain-able do they seem to you?
- How do the infrastructures connect with their surrounding natural habitat?
- What signs of human-environment interactions did you see connected to your infrastructures?

In a technological adaptation of walking discussions called twalks, students can tweet their findings while they are walking.

ACTIVITY OUTLINE

4. Presentation

Coming back to the classrooms, students translated the findings from their walk into presentations (if you had more than one group per infrastructures in larger classes, these can come work now).

Presentations focused on showing what they had found and proposing forward-looking sustain-ability recommendations, which the groups presented to fellow students, who role-played a hypothetical senior leadership team.

These presentations could be extended to connect with other sustain-ability initiatives that might be happening on campus (such as Sussex' first-ever Sussex Sustainability Assembly which took place a few weeks after this workshop and was attended by the vice-chancellor).

Students could also collaborate on a final map that would include not only human-made infrastructures but also natural elements or could challenge students to think how other-than-human perspectives might be represented, for example by working with different materials to expand on the two-dimensionality of drawing. Such a map could also become a space for students from different disciplines to come together for transdisciplinary discussions, outside learning and collaborative designing.

ACTIVITY OUTLINE

5. Debrief

Each creative activity needs to be followed by a collective discussion session in order to draw out students' learning and connect it to the larger topics of the class. I often do that in the following class, after sending students a short survey with some reflection questions.

READING SUGGESTIONS

Section from Creative Universities (Longer description of this activity and its pedagogical groundings in the book)

- Pages 127-132

These are the readings my students do for the classes connected to this activity:

- McFarlane, C., & Rutherford, J. (2008). Political infrastructures: Governing and experiencing the fabric of the city. *International journal of urban and regional research*, 32(2), 363-374.
- Guma, P. K. (2020). Incompleteness of urban infrastructures in transition: Scenarios from the mobile age in Nairobi. *Social Studies of Science*, 50/5: 728-750.
- I also introduce students to mapping as a political activity through a video of the MapKibera project, which uses community mapping to make visible the dearth of infrastructures in the informal settlement of Kibera in Nairobi

Here are readings related to walking pedagogies and twalks:

- Middleton, A. and Spiers, A., 2019. 20. Learning to Twalk: An Analysis of a New Learning Environment. *Social Media in Higher Education: Case Studies, Reflections and Analysis*.
- Springgay, S., & Truman, S. E. (2017). *Walking methodologies in a more-than-human world: WalkingLab*. Routledge.
- Vasant, S. (2019). 21. Academics' Understanding of Learning Spaces: Attitudes, Practices and Outcomes Explored through the Use of. *Social Media in Higher Education: Case Studies, Reflections and Analysis*.