

BRIEF REPORTS

Working With Students as Co-Researchers; a Reflection on Process

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This report reflects on a small-scale participatory research project co-developed with postgraduate students to explore how students and academic-educators experience teaching and learning in environmentally focused higher education programs. The project was led by The Cabot Institute for the Environment in partnership with The Young Foundation, and six postgraduate students at The University of Bristol. The report considers how participatory approaches which involve students as co-researchers might enable the development of sensitive and robust pedagogy in environmental higher education. The report briefly outlines the project's background before detailing how collaborative training workshops can be used as a method for participatory research design, and to enable co-analysis. The report illustrates how working with students as co-researchers as part of a participatory design can support new insights and the development of findings and recommendations for education practice.

This report reflects on a research project undertaken by the authors with a team of postgraduate student co-researchers exploring how participatory research might support us in developing sensitive and robust pedagogy in environmental higher education. In this report we briefly explain the background to this project, share an account of how we facilitated the research process and reflect on how the participatory approach and methods supported the development of findings and recommendations. The project was led by The Cabot Institute for the Environment in partnership with The Young Foundation, and six postgraduate students at The University of Bristol. This report is co-authored between the project's academic and community-organisation partners and has been shaped by the student co-researchers' reflections on the project.

The research project explored the experiences of studying, researching, and teaching environmental change and sustainability at The University of Bristol. The project was designed in response to findings from a prior case study which had explored experiences of research culture within Cabot's interdisciplinary environmental master's by research program. A theme that emerged from the previous study with unexpected strength, was the extent to which academics and students reported experiences of fear, anxiety, guilt, and helplessness in relation to their teaching, learning and research about the changing environment. Students reported that the environmental fears they held before commencing their studies were often heightened by learning in

more depth about the environmental crisis. These findings pointed to a need to better understand and focus on the experiences of students and academics engaged in environmental education so that we could consider the structure of our teaching and learning.

There is a growing body of literature which points to the mental health implications for those studying, researching, and teaching environmental and sustainability related topics (Kelly, 2017; Pihkala, 2022). The term ‘eco anxiety’ is often employed to describe a range of complex negative emotions closely associated with the rise of natural disasters around the world (Clayton, 2020; Coffey et al., 2021). A global survey from Hickman et al., summarized the emotions associated with climate change as: “*worry, anger, grief, despair, guilt, and shame, as well as hope*” (2021, p. e863). Emotions related to environmental and climate change tend to be imbued with a sense of hopelessness due to the lack of clear solutions to the problem; people who experience eco anxiety become overwhelmed by this feeling (Ojala et al., 2021).

Young people are the most likely to report experiences of eco-anxiety (Clayton & Karazsia, 2020) with those under the age of 26 thought to be particularly vulnerable (Parker et al., 2019). Eco-anxiety can be highest in those with the closest ties to the natural world (Pihkala, 2020) including academics and students who are working on environmental issues. These individuals have knowledge about the scale and severity of environmental problems and tend to have strong emotional ties with their work and with the environment (Fraser & Brandt, 2013), this combination of knowledge and connection can produce ‘traumatic’ symptoms including ‘psychic numbing, compassion fatigue and burnout’ (Pihkala, 2019).

Paying attention to eco-anxiety is particularly important in the context of Higher Education which has been described as facing its own crisis of mental health and wellbeing (Lewis & Bolton, 2023). A 2021 International systematic review and meta-analysis reported the prevalence of depression amongst student bodies at 25% (Sheldon et al., 2021), a recent UK survey puts this figure at 30% with 30% of students reporting worsening mental health since commencing their studies (Lewis & Bolton, 2023; Student Minds, 2023).

Developing The Project

Reflecting on the literature and findings from the prior case study, we wanted to work with students collaboratively, adopting a participatory approach, recognising that research is enhanced through including experiential expertise (Collins & Evans, 2002). We wanted to engage with students actively to co-develop rigorous and meaningful research that could genuinely inform future teaching practice. We designed information about the project and shared this widely with University of Bristol students on postgraduate environmental courses. We asked students to complete an application form and explain why they were interested in the role. Through

this process we recruited six co-researchers who were employed by The Young Foundation and were paid the UK real living wage for their work on the project.

This project received ethical approval from The University of Bristol's Faculty of Arts Ethics Board, we shared the ethics application and related documents with the co-researchers in advance of our first meeting and asked them to become familiar with them so that we could discuss them and amend as appropriate. Co-researchers also completed online training on safeguarding and GDPR to support responsible research. We met with the co-researchers in person and worked through a series of activities and training sessions to co-develop a research plan. Training co-researchers is an area that needs careful thought, planning and flexibility (Thomas-Hughes & Barke, 2018) and we recognised that *"what works best will vary according to context and there is a need to continue to experiment with and to monitor effectiveness of different forms of coproduction"* (Martin, 2010, p. 217). Training in this context was not about teaching a group of people how to do something, rather it related to facilitating a space where collaborators could collectively share their skills and interests, interrogate the aims of the research, address any pragmatic considerations, and develop shared plans. We see the role of facilitator as one of creating a space where communication is enhanced and actively *"...making different thought styles visible and linking them around common interests"* (Beebeejaun et al., 2015).

To ensure we were all on 'the same page' and had a shared understanding of the fundamentals of the research we started training by outlining the project aims, our hopes and expectations, and discussed individual motivations, skills, and interests. We shared information and literature on the principles of participatory research, the topic of eco-anxiety, and the background to the project. Next, we delivered a session on research methods and ethics. This was designed to be a discursive space in which we could develop a shared understanding of the methods we might like to employ and associated ethical considerations. The co-researchers came from different backgrounds and disciplines with diverse understandings and interests in qualitative and quantitative research methods. To work with their combined expertise, it was essential to share knowledge and assumptions and ensure that we each understood different ways of exploring and understanding experience, developing a shared vocabulary and way of talking about our research.

Next, to develop a research plan we asked the co-researchers three questions; (1) What do we want to know? (2) How can we find this out? (3) Who do we need to tell? As the co-researchers discussed these questions, they made their thoughts visible to one another, sharing ideas and questioning one another, through facilitated dialogue they were supported to connect and refine ideas until a plan was formed collectively. The co-researchers decided to carry out interviews with students on environmental courses and survey

lecturers who were teaching on environmental courses. They wanted findings to be shared broadly with people studying and teaching on environmental courses.

We took different approaches to the development of the questionnaire and the interview guide. One of the co-researchers was keen to lead on the survey's design and the group agreed with that approach. We shared additional information and advice on survey design and data storage with the lead co-researcher and an initial design was shared with the group who made suggestions and supported the process of refining the design and collecting responses.

The interview guide was developed collaboratively by the co-researchers. They each wrote questions on post-it notes which were collated, and duplicates were removed. We discussed language, purpose, and intent, we wondered whether to use the term 'eco-anxiety' as some felt it could catastrophize experience. An agreement was made to use open language and then see what terminology interviewees used and be guided by them. Once we had a set of questions, we considered the order and flow of the interview. We practiced interviews as a group which provided an opportunity to share concerns, tips and refine the guide. We then developed a timeline and protocol for interviews, we agreed an inclusion/exclusion criterion and once all were happy with the plan the co-researchers began recruitment.

Fieldwork and Findings

The survey was completed by 10 lecturers each actively involved in delivering environmental education from within a different disciplinary background, and from across career stages. Co-researchers conducted 14 interviews with current students, in person and online. Interviewees were all full-time students studying social sciences, engineering, or health sciences, with the majority (80%) studying at master's level. There were equal numbers of male and female interviewees, most self-identified as 'white British', with a minority self-identifying as 'Chinese', 'African', 'Caribbean' and 'Indian'. During the interview period, we encouraged co-researchers to engage in individual and collective reflexivity and facilitated weekly drop-in sessions for support and discussion of the process.

Once fieldwork was complete, we worked through a guided analysis process. At this stage, our aim was to integrate findings from the surveys and interviews. The group reviewed survey responses and read transcripts of their (and others') interviews. They noted down their thoughts, highlighting interesting comments. We then worked through a series of exercises. First, we reminded ourselves of the research aims: to better understand the student experience of environmental teaching and learning at Bristol, within the context of wellbeing and eco-anxiety. We wanted to find ways to develop the curriculum and teaching that would engage with issues of environmental change and sustainability and take wellbeing into account. We explored our data collectively and methodically drawing out themes discursively, questioning one another, ensuring our conversations were rooted in our data.

This was carefully planned and facilitated, it was important that the co-researchers were able to talk about the data from their subjective position, bringing in their own experiences. This supported the contextualization of the data and led to the identification of a series of themes. We then interrogated these themes, changing them, and drawing in new ideas until we had a set of themes that we all agreed told the story of our data. These themes are briefly outlined below in [table 1](#):

Table 1

Emotions	Participants described a wide range of feelings about the climate emergency. Some felt optimistic and were pragmatic about the future, in particular positive action, by themselves and others, helped them to be hopeful: <i>"I'm comforted by the amount of passion that people have to change it and how mainstream that is now"</i> . Others described feelings of anxiety, particularly in terms of managing uncertainty; <i>"I get sad about the uncertainty, about my future because it feels a bit pointless to be doing so much and trying to build my life up without knowing what's coming or knowing what's coming"</i>
Teaching	Participants described how teaching related to the environment could provoke anxiety and concerns. Some felt that the sensitivities related to the climate emergency were not always recognized, and wondered if this could lead to students feeling they were unable to discuss anxieties. Participants described how lectures, readings and images could cause distress and that it was not always acknowledged, as one person noted; <i>"I thought that no one's actually bearing in mind how upsetting this course can be"</i> .
Recommendations	Participants highlighted the importance of flagging sensitive material, acknowledging topics may provoke emotions and signposting to support. Participants felt that teaching should include more positivity. Different courses appeared to cultivate different reactions to climate change, those with a focus on solutions seemed to lead to more hopefulness; <i>"I do feel optimistic because here we are, at least trying to find solutions so that we can look into the future where you're not being affected by climate changes that much and, you're trying to find a better space to leave eco-friendly space and work on it"</i>

Discussion

A particular benefit of working with students as co-researchers was the experience and knowledge that they drew on across the project to identify appropriate methods, develop research questions, recruit participants, and engage in analysis. The student co-researchers were able to contextualize comments and develop recommendations through data analysis which drew on the lens of lived experience. They were able to reach out across student communities in ways that might have been more challenging for us.

Co-researchers needed encouragement and carefully facilitated training to feel confident in their approaches and opinions. We found focusing on the importance of bringing our experience and subjectivity into the research process was particularly key. There were notable disciplinary differences in the prior-skills that co-researchers brought into the project, those with a social science background had familiarity with the epistemological groundings of community-research as an approach which was new to those from some other disciplines. This required careful management in training workshops and then provision of additional 1:1 support and encouragement for co-researchers who were using an approach beyond their typical comfort zone.

Through working with students as co-researchers we began to recognise that eco-anxiety is a shared experience of stress and anxiety which, within the structures of higher education, is typically treated as a one-directional wellbeing issue whereby students require support from academics who hold responsibility for pastoral wellbeing. In many ways this is an overly simplistic view of a shared phenomenon which does not create space for commonality and shared experience to build the activism and solidarity which might relieve some of anxiety associated with environmental fears. Emotion is a recognised dynamic in research and research-relationships (Bondi, 2016; Head & Harada, 2017; Ross, 2017) and we would suggest that emotion in environmental education relationships and delivery needs to be attended to.

We suggest that a mechanism to enable eco-anxiety to be surfaced productively in shared education spaces is for lecturers to explicitly name it and create space within taught space for conversations about emotional responses to course contents.

Conclusion

This participatory research was rooted in student experience, our questions, plans, and analysis were informed by experiential knowledge, previous literature, and methodological expertise. Working collaboratively across these different forms of knowledge and expertise involves reflexivity, curiosity, and knowledgeable facilitation. Research takes place within and across relationships and we recognise that creating these relationships involves developing shared understandings in an open dialogic space which requires both ‘care-ful ethical planning’ and the embracing of ‘mess’ (Manchester & Barke, 2020; Thomas-Hughes & Barke, 2018).

This report highlights how working with students as co-researchers in a participatory framework can go beyond evaluation work and move into the realm of co-creating content that contributes to our understanding of teaching and learning in a more equal and less provider-receiver model. We suggest that this approach can extend beyond environmental and sustainable education and can be a useful methodology for sensitively developing curricula across disciplines.

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