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## Teaching Portfolio

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### 1. Background and Pedagogical Approach

As an undergraduate student, I was equally likely to be found wielding a chainsaw for *Foundations in Sculpture* as I would have been counting worms for *Ecological Processes* or reading 'The Subjection of Women' for *Introduction to Gender Studies*. I developed my current eclectic pedagogical approach drawing on my interdisciplinary education where I was exposed to a variety of disciplinary traditions and teaching methods. My teaching philosophy is largely underpinned by humanism, and is united and characterised by several beliefs. These are:

**I believe in engaging 'whole' person in learning.** Learning is as much an embodied, emotional experience as it is a cognitive, intellectual one (Shephard, 2008; Shapiro & Stolz, 2019). In the classroom, I consider where bodies are in the space and how I can use the environment to activate students. I also recognise that students have rich lives beyond the classroom, which can impact their engagement to the benefit or detriment of their learning. This means I encourage students to draw on their own experiences in discussion and assignments, while also designing courses to ensure there is flexibility to accommodate happenings in students' lives.

**I believe that all students should feel included.** As a teacher, my job is to help *all* students learn. However, students come with different pre-existing abilities, competencies, interests, and motivations, meaning that it is easier to support some students' learning than others. I strive to take the steps necessary to show students they belong and help them to achieve their unique learning goals.

**I believe that there is always room to improve.** Every time I think I have perfected a teaching or learning activity, a student will offer some feedback that makes me rethink how I deliver it. As such, I treat all my teaching as a work-in-progress and seek out outside input to help improve my ability to support student learning.

**I believe that creativity and experimentation in teaching can enhance learning** (Sandri, 2012). I use non-traditional teaching activities and assignments to help activate student learning, as well as engage in creative experimentation paired with reflection to improve my own teaching practice.

My teaching portfolio illustrates these key tenets of my practice while I (1) outline the pedagogical studies I have undertaken, (2) detail my experiences of teaching and supervision, and (3) present and reflect on the development of pedagogical activities I have designed and delivered.

### 2. Pedagogical education

I have completed 52.5 ECTS credits about higher education pedagogy, and have engaged in other professional development related teaching, learning, and inclusive education. I have a Postgraduate Certification (PGCert) in Teaching and Learning in Higher Education from Keele University, UK. The programme had two main components. 'Teaching Reflectively' focused on supporting teachers to develop a critical rationale for their practice. 'Design and Development' focused on constructive alignment of learning and assessment, course and programme design, discipline-specific issues, inclusive practice, and quality assurance. Through earning my PGCert, I became a Fellow of the Higher Education Academy (now Advance HE) in 2016. This accreditation is an acknowledgment that I have demonstrated a broad understanding of effective approaches to teaching and learning support. In my PGCert, I received positive feedback for my reflective work and on my inclusive practice:

*...this was an excellent portfolio – you clearly got a lot out of evaluating your teaching, your work is highly reflective, and you demonstrated that you are really growing and developing your identity as a teacher. I thoroughly enjoyed reading it – and gained some useful insights that will inform my own thinking about teaching [...] Thank you for a very honest and thoughtful portfolio, which I found thought-provoking and interesting.*

*You were very skilled at involving [a student who hadn't yet spoken] in discussions and showed great tact with the student from China who might have found the more interactive activities a challenge. Towards the end of the session, this student was volunteering contributions, largely due to the positive learning environment you had created.*

To better understand the theoretical ideas that underpin my practice, I took a course run as a part of a Professional Doctorate in Education called *Critical Theories and Analytical Perspectives in Education*. When I started teaching in Sweden, I took a course in Higher Education Pedagogy to learn about national rules and regulations and how these translate into practice. During the pandemic, I took a course in Open Networked Learning, in which I learned how to effectively deliver open, online learning through a problem-based learning approach. Most recently, I took a course in Doctoral Supervision in which I learned about the role of the supervisor, pedagogy of supervision, Swedish regulations related to doctoral supervision, and equality, diversity, power, and ethics in supervision. I have also taken courses to ensure I deliver on my commitment to inclusive practice (*Unconscious Bias* and *Introduction to Deaf Awareness*), and a course to enhance my ability to support students in demonstrating their employability (*Understanding the Higher Education Achievement Report*).

In 2015, I received funding for an ERASMUS+ Training Mobility to visit the Centre for Environment and Development Studies (CEMUS) at Uppsala University, Sweden. During this placement, I shadowed teachers and coordinators and took part in workshops about implementing student-led learning and using 'crisis' as a pedagogical tool for transformative learning. I also observed a 'collaborative exam,' a collaborative formative assessment that required students to consider how to communicate effectively under pressure and encouraged reflection on the purpose of the assessment, as well as education more broadly.

### **3. Experiences of teaching and supervision**

I have been employed in educational roles in higher education since the beginning of 2013, when I was hired as a Sustainability Project Officer with the mandate to embed sustainability in the curriculum and student experience at Keele University. I supported a variety of student learning outside of the classroom through Student Eats (a community garden), 'Green Week' (a programme of sustainability-themed events), and a student-run food co-operative. I also engaged in more traditional educational development work, including creating an e-learning course for teaching staff, embedding sustainability themes in subject-specific skill development training (e.g., physics and midwifery), and piloting the 'Responsible Futures' accreditation, a change programme for embedding sustainability in university curricula (<https://www.responsiblefutures.org.uk>). I was also the lead staff contact for the WSEN Global Summit, a student-led conference for 106 student delegates and volunteers from six continents, hosted between Keele and Sussex Universities in the summer of 2016.

In 2015, I was hired as a Teaching Fellow in Environment and Sustainability to contribute to an international collaborative Bachelor's degree programme in Environment & Sustainability delivered between Nanjing Xiaozhuang University (NXU), China, and Keele University. I designed and delivered a Nanjing-based, condensed 'bridging course' ('Researching Sustainability, 7.5 ECTS) supporting students in their transition into the English educational system in terms of skills, processes, and procedures (e.g., academic conduct, writing, online learning platforms), as well as prerequisite content knowledge. I was responsible for the delivery of three other courses at Keele University, called Greening Business: Employability & Sustainability (7.5 ECTS, distance learning), Local Case Studies in Environment & Sustainability (7.5 ECTS), and Research Skills in Environment & Sustainability (7.5 ECTS). Contributions to other courses at Keele are listed in my CV. At Keele, I taught classes with between 20 and 40 students. I was also an advisor to an experimental teaching innovation project exploring active listening pedagogies to foster understanding of different viewpoints between students of different disciplines.

At Blekinge Institute of Technology, I was involved in teaching and marking several postgraduate courses, including Foundations for Strategic Sustainable Development, Research Methods for Sustainability, Behaviour Change for Sustainability, and Environmental Management. I was also appointed Assistant Sustainability Education Coordinator for the University and contributed the development of a seminar series on Education for Sustainable Development to support teaching staff in embedding sustainability in their teaching (see section 4). In 2020, my colleagues and I received funding from the Swedish Knowledge Foundation (1 134 350 DKK) to develop a Sustainable Transitions Strategist Certificate (15 ECTS). The certificate provided a broad-based understanding of sustainability and equipped students (professionals who had been laid off during the COVID-19 pandemic) with a toolbox of skills that they could apply in their workplaces. Most of the courses I taught at Blekinge Institute of Technology were online and included both synchronous and asynchronous elements. In 2023, I led three courses as part of a Sustainability Studies Certificate at the University of Calgary, a seminar on the Theory and Practice of Sustainability (6 ECTS), a project course called Sustainability Research Project (6 ECTS), and an introductory course called Exploring Sustainability (6 ECTS). I also updated the structure for Exploring Sustainability to include several classes on systems theory and change processes. The courses I taught at Blekinge Institute of Technology and the University of Calgary had between 40 and 100 students.

I have supervised eight undergraduate student dissertations and four Master's theses to completion. I have also co-supervised a further five Master's theses. Most of the Master's theses I supervised were written in groups of 3-

4 students. I have also acted as an interim supervisor to a doctoral student at Blekinge Institute of Technology who successfully defended their thesis in 2023, and currently sit on the supervisory committee to another doctoral student at the University of Calgary. I have also been invited to be on the committee of a further University of Calgary doctoral student who investigating outcomes of an environmental education and sustainability program at schools adjacent to Jordanian nature reserves, although this has yet to be formalised.

#### **4. Pedagogical activities: reflection and development**

In the coming section, I reflect on five case studies of my teaching and development work. I outline (1) how I have supported teachers to embed sustainability into their pedagogical practice, (2) my experience developing a course on social research methods for an international collaborative programme with Chinese students, (3) an activity I developed to teach qualitative data analysis, (4) an activity I developed to introduce students to emotions in the context of sustainability, and (5) how I support supervisees to achieve their goals.

##### Case study 1: Supporting teachers to embed sustainability in their pedagogical practice

David Orr (1994, p. 52), renowned environmental educator, wrote that *it is worth noting that [the destruction of the planet] is not the work of ignorant people. Rather it is largely the results of work by people with BAs, BScs, LLBs, MBAs, and PhDs. [...] Education can equip people to be more effective vandals of the earth.* While education can be an important vehicle for positive change, it is not the panacea many sustainability activists believe it to be. This is why it is so important to support educators to embed sustainability in their pedagogical practice. This process comes with challenges, like resistance to the perceived shoehorning of one discipline's content into another (Bessant, 2017). However, even teachers who are interested in engaging with sustainability often struggle to make connections between their discipline and sustainability content. Therefore, I have developed an online short course and a teaching activity to help teaching staff see the merits of engaging with sustainability in their educational practice, and how they can make links between their discipline and sustainability content.

The 1-hour online course I created was part of Keele University's suite of online learning. It was designed to inform (What is sustainability (education)?), motivate (Why bother with sustainability education?), contextualise (What is going on globally? Nationally? Institutionally?), and activate (How can *you* 'do' sustainability education?). It was designed for sustainability newcomers, with the goal that the course might spur further engagement in sustainability education. The course content included pedagogical strategies for embedding sustainability into teaching, and examples of how sustainability has been embedded into non-traditional sustainability disciplines. It used interactive activities, including quizzes and action-planning for future sustainability integration work.

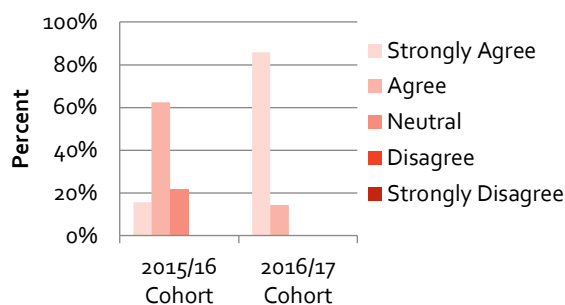
At Blekinge Institute of Technology, I developed an activity to support university teachers to explore how they could engage with sustainability-related content in their course or programme through different teaching and learning activities. I created laminated cards (Appendix A) with the following on them: (1) components of a definition of sustainability (Broman & Robert, 2017), (2) discipline entry points for sustainability (Ryan & Tilbury, 2011; Kagawa et al., 2012), and (3) different teaching and learning activities. These prompts were used to facilitate discussions about what were appropriate entry-points to bring sustainability into their course or programme, and what teaching or learning activities could be used to facilitate this. This activity fed into an assignment (Appendix B) in which the teachers created a plan for embedding sustainability into their teaching. Participants reported that the exercise was valuable and requested to use the discipline entry-point cards in their own teaching. I also received feedback that there seemed to be more diverse entry-points for social science disciplines compared to the natural sciences or technical disciplines. I am interested in developing this activity further with input from under-represented disciplines to create a more diverse menu of entry-points.

##### Case study 2: Improving a research methods course on an international programme with Chinese students

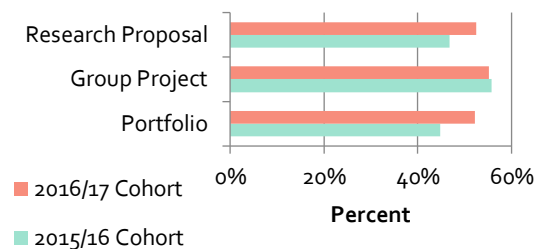
After delivering 'Researching Sustainability' (the 'bridging' course for Chinese students from NXU), I focused on it for my assignment on the 'Design and Development in Higher Education' course in my PGCert. From the course evaluations, I found that students benefitted from working in groups, however, some students bore the burden of most of the work and others were able to 'coast' through the course. Plagiarism was a problem within the cohort despite students doing exercises to learn about it, and my attempts to 'design it out.' From this, I concluded that better support for learning how to paraphrase and cite correctly would be more effective than teaching what plagiarism is. It was also apparent that formative feedback was highly valued by the students, with some reporting that they appreciated when I *[discussed] with each group and [spoke] with each student* about their research topic. Based on these findings, when I taught the module to the next cohort, I (1) included peer assessment for group work, (2) adjusted the weight for the assignments such that group and individual work was weighted equally (rather than more for group work), (3) introduced an exercise about paraphrasing/citing correctly, and (4) included formative feedback for one of the portfolio tasks. As can be seen from Figure 1,

student satisfaction with the course increased, from 15% strongly agreeing with the statement 'Overall, I am satisfied with the quality of the module' to over 85% (Figure 1). The grades on the portfolio and research proposal assessments went up by 7% and 6% respectively (Figure 2). Despite having the same number of students in the class, there were only three cases of plagiarism compared to seven in the previous cohort, and only one suspected but unsubstantiated case of 'back translation' plagiarism compared to six in the previous cohort. While inter-cohort variation in skills, knowledge, and abilities makes these comparisons difficult, the combined results indicate that the interventions implemented as a result of my reflections may have had a positive outcome on student satisfaction and performance. This is also supported by qualitative feedback from international students about the support I gave to them in transitioning to the UK education system. A student from NXU that I taught in China and whose dissertation I supervised said I helped foster her interest in social research and develop her study skills:

*When I studied in China, Bekki taught me a two-week course. It was the first time for me to learn some about research method, so I have some problems. She always listened my questions and doubts patiently, and gave me answers in detail. Finally, I achieved satisfied grade about this course, and developed the interests in social research. A patient teacher tends to make student interested in studies. Therefore, I chose a proposal about social research as my final dissertation, and Bekki was my supervisor. In order to monitor my dissertation, we always had a meeting once a week. In a meeting, she always gave me a weekly task and gave me feedback about last week task, as well as helped me solving the questions. I am a Chinese student, and poor in oral and written English. Sometimes, I explained something vaguely, and she always tried her best to understand without any impatience. Besides, I am not a good time manager. Last semester, I always finished work for a couple days before deadline, but received low mark. However, Bekki helped me developed a good habit with learning to divide task by monitoring my dissertation. Moreover, when I did good job about some parts, she praised me; when I confused and felt disappointed, she encouraged me.*



**Figure 1.** Students' level of agreement with the statement 'Overall, I am satisfied with the quality of the module' in the 'Researching Sustainability' course.



**Figure 2.** Averages on assessments from the 'Researching Sustainability' course before and after implementing changes.

### Case Study 3: 'The Button Activity'

I developed a teaching and learning activity (Appendix C) to help students understand the process of coding qualitative data (Saldana, 2018). The activity uses buttons that are treated as 'data,' to be organised and made sense of. Over the years I have struggled to teach coding effectively. Originally, I began by providing students with transcripts that they could practice with individually as homework, however students would get bogged down in the content of the transcripts rather than learning about the overall process. Then I tried having them do it in groups with a well-defined time limit. However, the content of the text still seemed to obstruct learning about the process. The next time I taught it, I tried an entirely new approach. I drew on an exercise I had learned about in the context of participatory methods in action research, which used the process of organising buttons as a metaphor for 'othering.' From this, I created a lesson plan and tried the exercise for the first time in 2019. I asked students to organise piles of buttons into different categories in three different rounds, modeling inductive analysis, comparative deductive analysis, and thematic deductive analysis. It was exceptionally effective at teaching the content, allowing for the basic principles to be taught without the distraction of text. Students enjoyed the activity, which was a considerable shift given that students had complained about coding activities in previous years. There also appeared to be considerably less confusion regarding the process of coding throughout the thesis process. I have repeated this every time I have taught qualitative data analysis since.

### Case Study 4: Engaging with emotions in an introductory sustainability course

Difficult emotions, like anxiety and helplessness, are well-documented outcomes of learning about sustainability (Sund & Öhman, 2018; Ojala, 2016; Threadgold, 2012). Some coping strategies students use to deal with these emotions can be unhelpful, not only to the students' well-being but also in terms of their future engagement with

sustainability. Therefore, for sustainability education to promote student well-being and drive transformations towards sustainability, it needs to be done in a way that supports students to cope with difficult emotions effectively. To address this, I designed a lecture, slide deck, and activity (Appendix D) for two cohorts (100 undergraduates) of an introductory sustainability course at the University of Calgary in the Autumn of 2023. Since students can perceive discussing emotions to be 'unscientific', I used the lecture slides to illustrate how common it is to hear emotions discussed in the context of sustainability (using news headlines) and to explain why emotions are rarely explicitly addressed despite this. I referred to empirical studies on the topic throughout the lecture and cited these in the slides. I also highlighted the potential negative consequences for the sustainability movement if emotions are not addressed. The lecture concluded with some evidence-based strategies for coping with difficult emotions in the context of sustainability education. The worksheet focused on supporting students with applying the material from the lecture, guiding students through identifying emotions they feel when thinking about a particular sustainability problem, coming up with strategies to validate their emotions, and identifying other coping strategies.

#### Case Study 5: Supervision that supports students' goals

I have come to see that no two students require the same supervision. It is therefore important, as a supervisor, to discuss students' goals with them, especially their professional goals. It can be easy to assume students want to go down an academic route, but many students intend to go into industry, the public, or third sector. As a supervisor, I aim to help students use their research experience as an opportunity to find out more about what sorts of jobs they might want, and gain valuable skills that they could use in their future work, whether it is within or outside academia. At Blekinge Institute of Technology, the Masters' theses I supervised were written in groups of three or four. I found it was important to be systematic in identifying students' goals and revisiting them during the thesis process to ensure no student's goals were overlooked. Some of the students' goals were, for example, to find out if they wanted to go into a profession related to their thesis topic, to improve their writing in English, and to learn about the research process. I used three formal check-ins: the first focused on goal setting, the second focused on assessing progress and adjusting the goal(s) as necessary, and the final one assessed students' progress towards the goal(s) and helped them to develop ideas and plans for continued development beyond their thesis. Students have expressed that they appreciated having the opportunity to discuss and reflect on broader goals beyond that of completing a thesis.

### **5. Other information and pedagogical qualifications**

#### Awards and recognition

In 2017, I received an Excellence Award in Teaching and Learning in Higher Education for my student-centred and participatory approach to sustainability education both within and beyond the classroom, as well as my culturally inclusive support for Chinese students transitioning into UK higher education.

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## **Appendix A**

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### Teaching prompts for embedding sustainability in different disciplines

See Case Study 1 on page 3 for an explanation of this Appendix.



**Figure 1. Prompts for supporting university teachers of different disciplines in identifying strategies to embed sustainability into their teaching.**

#### **Discipline entry-points for sustainability**

- Accountability and ethics
- Alternative Futures
- Biological diversity
- Citizenship, democracy, governance
- Community resilience
- Consumerism and ethical trade
- Corporate social responsibility, business ethics
- Cultural diversity and equality
- Cultural heritage
- Ecosystems and ecological principles
- Education / educational theory
- Employability
- Food security
- Globalisation of trade
- Health and well-being
- Human rights
- Intercultural understanding
- Internationalisation
- Landscape
- Leadership and managing change
- Learning organisations and communities
- Millennium Development Goals
- Natural resources management
- Peace, security, conflict resolution
- Pollution
- Poverty
- Quality Management, Environmental Management Systems
- Responses to climate change
- Rural and urban development
- Social justice
- Waste, Water, Energy

#### **Teaching and learning activities**

- Debate sessions on a sustainability topic, can involve elements of role play
- Create an online discussion forum where students can discuss sustainability-related content
- Use sustainability related examples to illustrate concepts or theories from your discipline
- Have students do reflective journaling about sustainability-related content
- Have students write an essay on a sustainability related topic
- Get students to write blog posts on sustainability-related topics
- Have students create a video with a sustainability theme
- Deliver a lecture about sustainability related-content in your discipline
- Explore sustainability themes in 'field-work'
- Have students do sustainability-related concept mapping (mapping the relationships between different concepts)
- Sustainability-themed problem-based learning exercises (students collaboratively solving challenging, open-ended problems and reflecting on their experiences)
- Go outdoors to teach (ie. plant identification in biology, mindfulness in psychology)
- Use case studies to illustrate a sustainability topic
- Have students do sustainability-related brainstorming (creatively coming up with different ideas related to a question or topic)
- Discuss papers with sustainability themes
- Create an online discussion forum where students can discuss sustainability-related content
- Invite sustainability-related external speakers
- Use sustainability-related data sets for skill-based practical sessions
- Student-led lectures
- Lead a community walkthrough (a method where a group walks through an area to make observations to explore how communities could be improved)



## **Appendix B**

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### Education for Sustainable Development Seminar Series Assignment

See Case Study 1 on page 3 for an explanation of this Appendix.

## Education for Sustainable Development Seminar Series Assignment

Deadline: April 22

In this seminar series there are staff with different roles and responsibilities. Therefore, the way people embed sustainability in their teaching or work responsibilities will be different. This assignment is designed so you can choose something that would be most appropriate to you, given your role and responsibilities.

You can work individually, or collaborate with a colleague if you can agree on a common assignment. Please write in English if this would not significantly hamper your ability to express reasonings and nuances. The exceptional alternative is then to write in Swedish.

Please choose one of the following three assignments:

### 1. Creating sustainability learning objectives in a course

#### Part A:

Choose a course you teach in or are responsible for. Formulate one or more sustainability-focused learning objectives and constructively align<sup>1</sup> these learning objectives with learning activities and assessments. You may want to use examples given in the second seminar or in the reading list as inspiration.

No word limit.

#### Part B:

1. Explain and justify how your learning objectives, activities, and assessments are constructively aligned.
2. Explain what dimensions of sustainability the proposed learning objectives, activities and assessments incorporate (e.g., social and ecological dimensions) and justify your choice.
3. If your developments do not include a holistic perspective on sustainability, explain (or reason around) how students will walk away from your programme with a holistic perspective on sustainability.

Word limit: 500 words.

Note: There is no requirement to actually change your course in practice for this assignment, although it may be something you consider to do after the seminar series.

#### Key Readings

- [https://www.bu.edu/cme/forms/RSS\\_forms/tips\\_for\\_writing\\_objectives.pdf](https://www.bu.edu/cme/forms/RSS_forms/tips_for_writing_objectives.pdf)
- Biggs, J. (2014). Constructive alignment in university teaching. *HERDSA Review of Higher Education*, 1(5), 5-22.
- Longhurst, J., Bellingham, L., Cotton, D., Isaac, V., Kemp, S., Martin, S., ... & Tilbury, D. (2014). *Education for sustainable development: Guidance for UK higher education providers*. <http://eprints.uwe.ac.uk/23353/1/Education-sustainable-development-Guidance-June-14.pdf>
- Kohn Rådberg, K., Lundqvist, U., Malmqvist, J., Hagvall Svensson, O. (2018). From CDIO to challenge-based learning experiences – expanding student learning as well as societal impact? *European Journal of Engineering Education*. pp.1-16.

### 2. Embedding sustainability at a programme-level

#### Part A:

Examine a programme you are involved in or have responsibility for to assess where sustainability aspects are already present. You may find it is appropriate to do this in a table.

Word limit: 500 words.

#### Part B:

Identify 'low-hanging fruit' (low effort, but high reward) for embedding sustainability aspects in your programme. Propose some strategic steps, being as specific as possible. You may want to use examples given in the second seminar or in the reading list as inspiration.

Word limit: 500 words.

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<sup>1</sup> Constructive alignment is the process of making sure there is coherence between learning objectives, teaching activities, and assessment. That is, you teach students in a way that will help them achieve pre-defined learning objectives, and you assess students' learning that corresponds with the learning objectives.

Note: There is no requirement to actually change your programme in practice for this assignment, although it may be something you consider to do after the seminar series.

### Key Readings

- Wiek, A., Withycombe, L., & Redman, C. L. (2011). Key competencies in sustainability: a reference framework for academic program development. *Sustainability Science*, 6(2), 203-218.
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- Kohn Rådberg, K., Lundqvist, U., Malmqvist, J., Hagvall Svensson, O. (2018). From CDIO to challenge-based learning experiences – expanding student learning as well as societal impact? *European Journal of Engineering Education*. pp.1-16.

### 3. Reflecting on how you can contribute to education for sustainable development through your job role

*This assignment is mainly intended for those who don't have educational responsibilities explicitly within their job role.*

Sustainability education does not just happen through the formal curriculum. People also learn about sustainability through the 'hidden curriculum.' The 'hidden curriculum' is "the implicit messages a university sends about sustainability through the institutional environment and values" (Winter & Cotton, 2012, p. 783). In other words, the built environment of the university, as well as its policies, processes, norms, and values, all send implicit messages to students (and staff).

For this assignment, read Winter & Cotton's (2012, 2013) articles on the hidden curriculum in higher education and write a reflection responding to one or more of the following:

- What kinds of sustainability-related norms are communicated in my **work practices**? Think about several dimensions of sustainability (e.g., social and ecological dimensions).
  - How can I reinforce pro-sustainability norms further?
  - How can I change or disrupt unsustainable norms?
- What kinds of sustainability-related 'messages' are communicated through the **built environment** at Blekinge Institute of Technology? Think about several dimensions of sustainability.
  - Are there any 'messages' that should be changed?
  - Who could make those changes? What steps could *you* take to make those changes happen?
- **What factors contribute most** to the unsustainable 'messages' sent by the 'hidden curriculum' at Blekinge Institute of Technology?
  - How could this be changed to make the 'hidden curriculum' send more pro-sustainability 'messages' instead?
- **What changes can I make** to help embed sustainability into the 'hidden curriculum' at Blekinge Institute of Technology? Think about several dimensions of sustainability.
  - What might be 'low hanging fruit' (low effort, but high reward)?
  - What might be the challenges I encounter in this process? How could I overcome them?

Please note: These questions are written as prompts for *reflective* writing. Reflective writing is a different style of academic writing (which you can read about in the key readings below). For this assignment you do not need to respond to all of the prompts. Instead, use them (or other prompts) to inquire into issues and questions that are relevant to you and to think about the changes you can make to support sustainability in your role.

Word limit: 1000 words.

### Key Readings

- <https://student.unsw.edu.au/how-do-i-write-reflectively>
- <https://student.unsw.edu.au/examples-reflective-writing>
- Winter, J., & Cotton, D. (2012). Making the hidden curriculum visible: sustainability literacy in higher education. *Environmental Education Research*, 18(6), 783-796.
- Cotton, D., Winter, J., & Bailey, I. (2013). Researching the hidden curriculum: intentional and unintended messages. *Journal of Geography in Higher Education*, 37(2), 192-203.

## Appendix C

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### Qualitative Analysis Activity ('The Button Activity') Lesson Plan

See Case Study 3 on page 4 for an explanation of this Appendix.

## Qualitative Analysis Activity ('The Button Activity')

### *Lesson Plan*

**Duration:** 3 hrs

**Class size:** 8-60 students

**Level:** Can be tailored, from advanced undergraduate through to doctoral level

#### **Assumed prior knowledge**

Basic understanding of research paradigms (ontology & epistemology) and qualitative data collection (e.g., interviews, focus groups, questionnaires, etc.).

No knowledge of qualitative data analysis assumed.

#### **Aim**

To introduce students to qualitative data analysis and prepare them for the analysis required in their thesis work.

#### **Intended learning outcomes**

By the end of this activity, students should be able to:

- Describe various coding and qualitative data analysis strategies
- Design a qualitative data analysis strategy using coding and rationalise its use for a particular dataset and research question

#### **Key concepts**

- Coding
- Inductive analysis
- Deductive analysis
- Thematic analysis
- *In vivo* coding

#### **Resources**

- Laptop (PowerPoint presentation)
- Jars of buttons
- Flipchart paper
- Markers
- Post-it notes

#### **Classroom set up**

'Pods,' or small tables with clusters of 4-8 chairs depending on class size with flipchart paper, pens, and jars of buttons at each 'pod.'

Time (minutes)	Content & Teacher Activity	Student Activity	Resources
0-5	<b>Introduce aims/ILOs and timeline of the session</b>	Listen and watch	PowerPoint
6-15	<b>Review earlier content about quantitative vs qualitative data</b> <b>Introduce coding as a concept</b>	Listen and watch	PowerPoint
16-20	<b>Introduce coding button activity: Round 1</b> Give the following instructions: Treat the buttons as data. Code the buttons according to the following question: <i>What themes are present in the data?</i> Invite process questions and respond.	Listen, watch, ask questions	PowerPoint, Buttons
21-30	<b>Facilitate coding activity: Round 1</b> Observe students. Respond to process questions.	Follow instructions from above	PowerPoint, Buttons
31-50	<b>Facilitate discussion about the activity: Round 1</b> Invite students to share what happened at their table, descriptively. The following questions could be used as prompts: <i>What were the themes you identified?</i> <i>How did the table decide which themes were coded for?</i> <i>How did the coding strategies differ between 'pods'?</i> Then, once students have described what happened, invite students to consider the activity more reflectively, asking questions like: <i>Why do you think ___ happened?</i> <i>How might this process have looked different using actual qualitative data, like interview transcripts, for example?</i> Use opportunities to identify examples of <b>inductive</b> or <b>deductive analysis</b> , <b>thematic analysis</b> , and <b>in vivo coding</b> .	Reflect, respond to questions, listen	Buttons
51-60	Break		
61-65	<b>Introduce coding button activity: Round 2</b> Give the following instructions: Divide the buttons into 5 piles and label them 'dataset 1,' 'dataset 2,' and so on with post-it notes. Think about the characteristics of the buttons and decide what characteristic you want to code for (only pick one). Down the left side of the sheet of paper, label with the datasets ('dataset 1,' 'dataset 2,' and so on). Think of the characteristic you want to code for. What are the possible categories for this? Label them along the top of the sheet. Code the buttons according to the following question:	Listen, watch, ask questions	PowerPoint, buttons, flipchart paper, post-it notes, markers

	<p><i>What is the relationship between the datasets and the characteristic you are coding for?</i></p> <p>Invite process questions and respond.</p>		
66-75	<p><b>Facilitate coding activity: Round 2</b></p> <p>Observe students.</p> <p>Respond to process questions.</p>	Follow instructions from above	PowerPoint, buttons, flipchart paper, post-it notes, markers
76-95	<p><b>Facilitate discussion about the activity: Round 2</b></p> <p>Invite students to share what happened at their table, descriptively. The following questions could be used as prompts:</p> <p><i>How was this round of coding different from the last round?</i></p> <p><i>How did the coding strategies differ between 'pods'?</i></p> <p>Then, once students have described what happened, invite students to consider the activity more reflectively, asking questions like:</p> <p><i>Why might a researcher choose a strategy like was used in this round of coding rather than the first round?</i></p> <p><i>When might be a situation when you might want to analyse data in this way? Why? How might this process have looked different using actual qualitative data, like interview transcripts, for example?</i></p> <p>Use opportunities to identify examples of <b>inductive</b> or <b>deductive analysis</b>, <b>thematic analysis</b>, and <b>in vivo coding</b>.</p>	Reflect, respond to questions, listen	Buttons, flipchart paper, post-it notes, markers
96-100	<p><b>Introduce coding button activity: Round 3</b></p> <p>Give the following instructions:</p> <p>Pile the buttons all together again.</p> <p>Think about two characteristics of the buttons and decide on two characteristics you would like to code for.</p> <p>Think of the first characteristic you want to code for. What are the possible categories for this? Label them along the left of the sheet.</p> <p>Think about the second characteristic you want to code for, but don't think about the categories it could be subdivided into yet. Just label the top of the sheet with the characteristic.</p> <p>Code the buttons according to the following question:</p> <p><i>What is the relationship between characteristic 1 and characteristic 2?</i></p> <p>Invite process questions and respond.</p>	Listen, watch, ask questions	PowerPoint, buttons, flipchart paper, markers
101-110	<p><b>Facilitate coding activity: Round 3</b></p> <p>Observe students.</p> <p>Respond to process questions.</p>	Follow instructions from above	PowerPoint, buttons, flipchart paper, markers
111-130	<p><b>Facilitate discussion about the activity: Round 3</b></p>	Reflect, respond to	Buttons, flipchart

	<p>Invite students to share what happened at their table, descriptively. The following questions could be used as prompts:</p> <p><i>How was this round of coding different from the last round?</i></p> <p><i>How did the coding strategies differ between 'pods'?</i></p> <p>Then, once students have described what happened, invite students to consider the activity more reflectively, asking questions like:</p> <p><i>Why might a researcher choose a strategy like was used in this round of coding rather than the first round?</i></p> <p><i>When might be a situation when you might want to analyse data in this way? Why? How might this process have looked different using actual qualitative data, like interview transcripts, for example?</i></p> <p>Use opportunities to identify examples of <b>inductive</b> or <b>deductive analysis</b>, <b>thematic analysis</b>, and <b>in vivo coding</b>.</p>	questions, listen	paper, markers
131-140	Break		
141-155	<p><b>Presentation on qualitative data analysis</b></p> <p>Introduce strategies for analysis:</p> <ul style="list-style-type: none"> <li>• Thematic Analysis</li> <li>• Grounded Theory</li> <li>• Content Analysis</li> <li>• Narrative Analysis</li> </ul> <p>Describe different coding strategies</p> <ul style="list-style-type: none"> <li>• Lumping vs splitting</li> <li>• Manual coding vs computer assisted qualitative data analysis software</li> </ul> <p>Useful tips</p>	Listen and watch	Powerpoint
156-175	<p><b>Facilitate reflection on the activity and presentation</b></p> <p>Invite questions and reflections generally, and if there is a need, the following prompts can be used:</p> <p><i>What do you think are the benefits of using coding as a strategy to analyse data? Why? What do you think the weaknesses are of coding as a data analysis strategy? Why?</i></p> <p><i>How do you think rigour can be built into the coding process? Why?</i></p> <p><i>What measures of rigour do you think are appropriate for qualitative research? Why?</i></p> <p>At this point it is common for epistemological questions to be raised, particularly concerning the subjectivity of the process. This is a good opportunity to link with earlier content.</p>	Reflect, respond to questions, listen	
176-180	<p><b>Wrap up</b></p> <p>Summarise key points from the lecture, intended learning outcomes.</p> <p>Point students to academic resources for further information.</p>	Watch and listen	Powerpoint



## Appendix D

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### 'Emotions in the face of (un)sustainability' slides & worksheet

See Case Study 4 on page 5 for an explanation of this Appendix.

Note: The slides presented are a selection from the original slide deck.



When we are learning we are feeling

Cognition (thinking) and emotions are "inseparable parts of the learning process" (Humphrey et al., 2007; Ojala, 2023, p. 1112)

Subject learning and socio-emotional learning are interconnected (Ojala, 2023)

## Learning about sustainability has emotional consequences

- Learning about sustainability topics increases worry (Sund & Öhman, 2018)
- Sustainability problems can cause 'existential anxiety' (Ojala, 2016)
- This worry can cause us to feel helpless (Threadgold, 2012)



<https://www.nytimes.com/2021/07/23/well/mind/mental-health-climate-anxiety.html>

## De-emphasizing the seriousness of the problem

- To get rid of negative feelings, people may also attempt to de-emphasize the seriousness of the problem
- This is associated with reduced engagement

(Ojala, 2012)



<https://sustainableice.com/climate-change-denial/>

Consumers Care a Lot More About Sustainability Than Most Realize	Fear of reprisals prevent people calling out employers on climate, says charity
	Workers can often be first to spot harms from rule breaches and
These 3 climate breakthroughs should give us hope for 2023 and beyond	
Does working for a sustainable company make you happier?	Why is sustainability so boring?
New research found that workers who report that their company is socially responsible also report, on average, having better mental health.	
BY PAULA ALLEN NOVEMBER 15, 2022	Sustainability Story
Climate Sustainability sphere is an 'exciting place to be'	August 23
Eco-grief: How to deal with the emotional impact of climate change	Influencers avoiding climate content for fear of being branded greenwashers
Anger is most powerful emotion for spurring climate action	Flies, gnats, maggots   San Diego residents frustrated with green compost bins
Link to climate activism is seven times stronger for hope than it is for fear, say Norwegian researchers	

## Acting more sustainably has emotional consequences

- People trying to behave more sustainably can:
  - Face structural barriers
  - "Encounter conflicts when breaking social norms"
  - Experience tensions between their behaviour and values
- This can lead to ambivalence (having mixed feelings)

(Ojala, 2022; 2023, p. 1111)



<https://www.earth.org/2022/08/23/why-is-sustainability-so-boring/>

## Why are emotions marginalised in sustainability?

- Worries about sustainability problems are often medicalised or seen as 'irrational' (Ojala, 2007)
- Sometimes we use emotionality to discredit people (e.g., 'stop being so dramatic', 'you're just being oversensitive') (Ojala, 2023)



## Negative emotions make sense

Negative emotions are healthy responses to societal problems (Amsler, 2011)

...climate anxiety is not an illness or disorder but an appropriate and even valuable source of discomfort that can provide an important lens to help people re-evaluate what is important to them and find meaningful ways to inhabit the world.

(Verlie et al., 2020, p. 133)



## Uncomfortable emotions can help drive sustainability action



### Worry

- Can **motivate** and make people “alert and poised for **action** and **problem-solving**” (Tallis et al., 1994; Sweeny & Dooley, 2017)
- Is related to “**problem-solving** and **information-seeking**” (Sweeny & Dooley, 2017)
- Is associated with **critical thinking** (Valentino et al., 2008)



### Anger

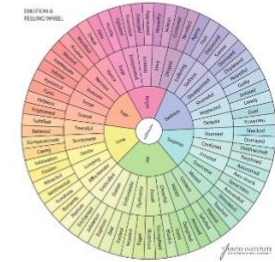
- Can play a role in **driving pro-environmental behaviour** (Li et al., 2022; Stanley et al., 2021)

## #1: Figure out what you are feeling

Putting words to emotions is a “first step in gaining some control over them and the problem at hand”

“free-floating emotions can lead to lower mental wellbeing and inactivity”

(Niederhoffer & Pennebaker, 2009; Ojala, 2023, p. 1114)



## #2: Validate

- Validation is **recognition or affirmation** that a person or their feelings or opinions are valid or worthwhile
- It is “important to validate people’s negative emotions so that they [...] don’t feel that it is strange for them to be feeling what they are feeling” (Edlund et al., 2015; Ojala, 2023, p. 1114)



<https://calmerry.com/blog/emotions-the-power-of-emotional-validation-why-we-need-it-and-how-to-practice-it/>

## An antidote to binary thinking: dialectics

Acknowledging that there are tensions, but we can transcend them by taking a third perspective

Dialectical thinking is positively related to engagement (Ojala & Anniko, 2020)



[https://www.researchgate.net/publication/358942778/figure/fig/1/figure-fig1/358942778.png](https://www.researchgate.net/publication/358942778/figure/fig/1/figure-fig1/358942778/figure-fig1/358942778.png)

**Situation:** I am taking action, but no one else is.

**Binary thinking:** ‘If I can’t be completely sustainable, there’s no point in trying.’

**Dialectical thinking:** ‘I can at least be a role model.’



<https://www.shutterstock.com/illustration/leader>

## Emotions in the face of (un)sustainability Worksheet

### Group members:

- 1.
- 2.
- 3.

### Instructions

There are 4 tasks in this worksheet. The tasks should be completed together as a group, and you should engage in discussion with one another throughout this worksheet.

Please note that this worksheet is not therapy and if you find it distressing you are free to stop at any time.

If you feel like you need to talk about any of these topics further, please contact Student Mental Health Services: <https://www.ucalgary.ca/wellness-services/services/mental-health-services>

If you feel in distress:

- Contact a crisis counselor from Wood's Homes Community Mental Health Services, or a highly trained volunteer at the Distress Centre (available in more than 200 languages) at 403-210-9355
- Visit the Distress Centre website (<https://distresscentre.com/211-lines/>) to access online chat from 3-10 p.m. on weekdays and noon-10 p.m. on weekends
- For immediate assistance for Indigenous peoples across Canada, contact Hope for Wellness (Help Line: 1-855-242-3310; Online chat: [hopeforwellness.ca](http://hopeforwellness.ca))

### Task 1: Choose a sustainability issue to focus on.

You might want to consider a sustainability issue learned about in this class, but any sustainability issue is acceptable.

Some examples might include climate change, food insecurity, pollution, biodiversity loss, water contamination, deforestation, colonialism, food waste, overfishing, social inequalities, economic inequalities, etc.

Our sustainability issue is \_\_\_\_\_.

### Task 2: Each group member should identify the emotions they feel when thinking about the above sustainability issue. Explain to your group mates why you think you feel this emotion.

Feel free to use the emotion & feeling wheel to identify your emotions. However, if you feel something not depicted on the wheel you can record that too.

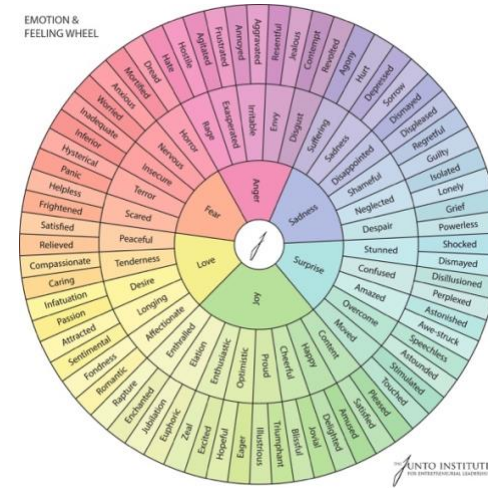
You can list multiple emotions, but choose one emotion which is the dominating one.

Remember, there are no right or wrong emotions. Try to be as honest as you can.

Group member 1's dominating emotion is \_\_\_\_\_.  
Other emotions group member 1 feels: \_\_\_\_\_.

Group member 2's dominating emotion is \_\_\_\_\_.  
Other emotions group member 2 feels: \_\_\_\_\_.

Group member 3's dominating emotion is \_\_\_\_\_.  
Other emotions group member 3 feels: \_\_\_\_\_.



### Task 3: Together, come up with at least one way of validating each person based on their emotional reaction to the sustainability issue.

Focus only on the dominating emotion.

All group members should participate in coming up with ways to validate one another. For example, group member 1 should be a part of coming up with a way to validate themselves. Group member 1 might want to let the other group members know if they find other group members' attempts to validate genuinely validating, or if it feels inaccurate, too cheesy, or 'off' in some other way.

Validation for group member 1:

Validation for group member 2:

Validation for group member 3:

### Task 4: Brainstorm at least 3 ways that each person's emotion could be coped with (which can include how they could be used productively in the face of the sustainability issue).

Coping strategies are the thoughts and behaviors you draw on to manage stressful situations.

If the dominating emotion is not a difficult or stressful one, identify one of the other emotions that is more challenging and brainstorm coping strategies for that.

Consider strategies that have been useful to you in the past.

Make sure the coping strategies are appropriate for the emotion being felt.

Coping strategies for group member 1:

Coping strategies for group member 2:

Coping strategies for group member 3: