

Creativity, Leadership and Education for Sustainability

A Creativity in Action Project to support student learning, action and impact for sustainability change

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Abstract

The sustainability challenges of our time require engagement from all, and the potential for the arts and humanities to contribute has been undervalued and underutilized within sustainability science approaches. UNESCO sees education is seen as a key leverage point to shift society towards sustainability transformations however as with sustainability approaches in general, the potential of creativity and the arts remains untapped as a tool, topic, process, pedagogy and way of thinking. Inspired by a creativity assignment delivered in a Leadership in Sustainability course at Curtin University in Western Australia, this paper describes a Creativity in Action Project which was an assignment within the Advanced Leadership for Sustainability course at Blekinge Institute of Technology in Sweden. It was a year long course that ran through 2021. This paper articulates the purpose, design, pedagogy, content and learning process of the Creativity in Action Project and how it integrates the whole course. In brief, the students were invited to: “...explore the role creativity and/or the arts play, or could play, in expanding your thinking and in shifting paradigms that move people towards sustainability” and the intention of the project was to “...explore creative ways to enact change for sustainability in your lives or communities” through taking inspiration from artistic practices and processes. Through a feedback survey from the students, this study evaluates the project as a whole and identifies the key pedagogical elements that supported the students learning; what provided value and impact for the students; as well as discussing the challenges in doing such work. With permission from the students, this paper showcases some of the artistic and creative projects that the students completed. The intention of this paper is to provide educators and learning designers with inspiration and a practical, adaptable, and impactful creativity-based pedagogy for the development of sustainability leadership and key sustainability competencies that could be used and adapted to various contexts. It is hoped this will in turn support societal transition towards sustainability through empowering students to be sustainability change agents by applying their creativity to solve a sustainability challenge in real life.

Keywords: Creativity, Key Sustainability Competencies, ESD, Leadership, Sustainability

1. Introduction

The sustainability challenges of our time call for new ways of education that produces graduates capable of creatively approaching the many problems we face (UNESCO et al., 2020). It will require engagement from all, and the potential for the arts and humanities to contribute has been undervalued and underutilized within sustainability science approaches (Palsson et al., 2013). To move towards a more sustainable society will require large scale transformations of our structures and systems and human agency, or leadership, is a key leverage point to do this (Abson et al., 2017; Bryant & Thomson, 2021). The change required within society will be one of social learning in its broadest sense (Barth & Michelsen, 2013) and with education as a key leverage point, much research has been produced to guide educators and practitioners on the key sustainability competencies required by graduates of sustainability education (Wiek, Withycombe, & Redman, 2011). More recent additions to this work introduce two newer competencies: the Implementation Competence (the ability to enact change for sustainability in the world), and the Intra-personal Competence (the ability to avoid burnout in implementing sustainability transformations through resilience-oriented self-care) (Redman & Wiek, 2021). Further research on the best ways to support the development of all of these competencies is still needed (Brundiers et al., 2021). As with sustainability approaches in general, the potential of creativity and the arts remains untapped as a tool, topic, process, pedagogy and way of thinking in Education for Sustainable Development (ESD) (Newman-Storen, 2014; Sandri, 2013).

The Cambridge Dictionary online defines ‘creativity’ as: “the ability to produce or use original and unusual ideas” (UK) and adds the phrase “...or to make something new or imaginative” to the US version. Creativity has clear benefits for individuals and society and does not just play a role in the arts, invention and innovation but in our everyday lives (Runco, 2004). Research into creativity can be grouped into four main areas: the creative *person*; the creative *process*; the *product* that is the result; or *press* – which refers to the situational influences or environmental support for creativity (Runco, 2004, p. 664). This paper presents a pedagogy – a Creativity in Action Project (CAP) - which invited students to participate with the foundational assumption that all *persons* are creative in various ways and forms, and all have the ability to produce a creative *product* through a creative *process*. The *press* – the situational or environmental influences that often support creativity are “freedom, autonomy, good role models, resources (including time), encouragement for originality, freedom from criticism and norms in which innovation is prized and failure not fatal” (Witt & Beorkrem, 1989, pp. 31–32). These reflect the conditions that we attempted to create to support student learning about themselves, the role and value creativity can play in addressing sustainability issues in their lives and work, and as a pedagogy to support the development of key sustainability competencies in the participants.

1.1 Context and Background

The Creativity in Action Project (CAP) was an assignment within the Advanced Leadership for Sustainability (ALfS) course at Blekinge Institute of Technology (BTH) in Sweden which ran through 2021. All students were required to be graduates of the Master's in Strategic Leadership towards Sustainability (MSLS) to participate, and the ALfS course built on concepts and relationships that are incorporated in that program (see e.g., Bryant, Ayers, Missimer, & Broman, 2021). It was a stand-alone course delivered online and was worth 15 credit points. The CAP was worth 2.5 points of the total course and the other assignments were two "Written Portfolio" deliverables (10 credits), and a "Learner Led Session" (2.5 credits) where they researched and then taught in groups topics they were interested in, to the class.

1.2 The CAP Assignment

For this assignment students were invited to explore the role creativity and/or the arts play, or could play, in expanding their thinking, and shifting paradigms that move people towards sustainability. It encouraged them to play with new ways of enacting change using creativity and the arts for inspiration. The CAP was inspired by a similar creativity project conducted in a Leadership in Sustainability course which I have also been involved in co-designing and teaching at Curtin University in Western Australia (see: Mouritz et al., 2022; Newman-Storen, 2014).

The deliverables for the CAP assignment were:

- The CAP project itself
- An individual Reflection Essay (500 words) on the lessons learnt in doing the CAP

The CAP could be done individually or in small groups and could be: "a process or product or thing or event that you must be able to present/show/demonstrate to others". In this project students were asked to use a unique and creative method to enact change for sustainability in some way:

"...to play, learn, dance, prototype, paint, sing or just take inspiration from these artistic practices to enact change in a way that is unique, novel and untried thus far for you. The intention of the project is to explore creative ways to enact change for sustainability in your lives or communities. Think of the output of this project as an exhibition which will be captured on a webpage on Canvas where you share your project and other students can read/see/experience your work."

Students were encouraged to stretch towards new ways of thinking, being and doing rather than producing an intervention or creative work of the utmost 'quality', 'beauty' or 'success'.

The pedagogical elements of delivering the project were:

- The online learning platform used at BTH is 'Canvas' which is used for all teaching – both distance education (online learning) and face-to-face. BTH changed to Canvas in 2018 as it has been designed to support education both in person and at a distance.
- The CAP content on Canvas included:
 - Introduction Video explaining assignment
 - One Required Reading (Newman-Storen, 2014)
 - Recommended Readings (Cameron, 1992; Jaworski & Flowers, 1996; Kagan & Kirchberg, 2016; Kajzer Mitchell & Walinga, 2017; Lozano, 2014; Molderez & Ceulemans, 2018; Palsson et al., 2013; Runco, 2004; Sandri, 2013)
 - Videos such as 'Do Schools Kill Creativity?' by Sir Ken Robinson; and 'Your Elusive Creative Genius' by Elizabeth Gilbert
- Creativity in Action 2-hour online class sessions (March and September 2021)
- One-on-one coaching sessions (offered at various times throughout the year)
- An 'Exhibition Space' on Canvas where students shared their project and work
- An 'Exhibition/Showcasing Event' at the end where students shared their projects and shared their lessons learned through doing the project.

Grading was pass/fail and participation in the project (and presentation through images, a weblink or description of what they did on the Canvas webpage), and submission of a Reflection Essay were the criteria to pass.

2. Research Methods

As a teacher and designer of this course and the CAP I identify as a 'Reflective Practitioner' (Schön, 2003). A primary goal of this study is to reflect on the work and course, to gather insight from participants and to offer the learnings for other educators of ESD. The primary data gathered include my own reflections from the experience of designing and teaching on the course; a 10-question survey which 21 out of 24 students responded to; and the artifacts of the creativity project shared predominantly as images. In this section I describe my own reflections which shaped the survey development so I will use the first person.

Through facilitating the final Showcase/Exhibition and reading the Individual Reflection Essays which the students were required to reflect on their CAP, I noticed the joy and pride at overcoming challenges and stretching comfort zones. I observed courage in their actions and found it interesting how some focussed on 'inner change' (of themselves) and others focussed on trying to create change for sustainability outside themselves. A further deliverable for the course was for students to provide "Written Portfolios" which are also a reflective pedagogy (Ayers, Bryant, & Missimer, 2020), some other teachers who were also teaching on the course told me how some of the students shared how important the creativity project was for them. This initial sense-making involving my own reflections on the CAP informed the design of the survey. The Survey consisted of 10 questions, predominantly open-ended questions with two quantitative questions. The 24 students who completed the CAP were emailed and invited to participate and 21 responded. Information about the study was provided in the email and at the beginning of the survey and the first questions were regarding consent. Students were invited to share the images of their creativity projects for which they could choose to remain anonymous or be credited for their creative work.

The main (open-ended) questions centred around:

- *Key Learnings*: (e.g., 'What were your key learnings from doing this Creativity in Action Project? Was it as you expected or were there unexpected learnings for you? How was your experience of making change for sustainability? What did you learn about it through this project?')
- *Impact of the CAP*: (e.g., 'Could you describe your impact (or change) for sustainability through this Creativity in Action Project?')

There was one question which sought the participants' evaluation of the pedagogical elements of the CAP project. It asked them to rate on a scale of 1-5 the extent to which they found the various pedagogical elements useful to (1 = not useful, 5 = extremely useful) and also asked an open-ended question inviting further comments and suggestions.

The other quantitative question asked the students for their reflection on the possibility for the CAP to develop key sustainability competencies (Brundiers et al., 2021; Redman & Wiek, 2021). I had my own theories about what the project might support the development of, but I was curious to see the students' perspectives as they are also professionals, and many of them familiar with the key sustainability competencies through MSLS and/or working in education for sustainability. This question was:

"To what degree do you think the Creativity in Action Project is useful for the development of the following key sustainability competencies (e.g.: knowledge, skills, attitudes)? Please rate from 1 - 5 (1 = not useful, 5 = extremely useful)

And in the question defined the competencies as:

1. *Systems-Thinking*: Ability to analyse complex systems and the impacts of sustainability action plans (strategies) and interventions (how they change systems and problems)
2. *Futures-Thinking*: Ability to anticipate future states and dynamics of complex systems and sustainability problems and how sustainability action plans (and strategies) might play out in the future if implemented.
3. *Values-Thinking*: Ability to apply sustainability values, principles, and goals to assess the sustainability of current and/or future states
4. *Strategic-Thinking*: Ability to construct and test viable strategies (action plans) for interventions, transitions, and transformations toward sustainability.
5. *Implementation*: Ability to put into action sustainability strategies and action plans, including implementation, adaptation, transfer and scaling, in effective and efficient ways.
6. *Inter-personal*: Ability to collaborate successfully in inter-disciplinary and professional teams; and to involve diverse stakeholders, in meaningful and effective ways, in advancing sustainability transformations.
7. *Intra-personal*: Ability to avoid personal health challenges and burnout in advancing sustainability transformations through resilience-oriented self-care (awareness and self-regulation).
8. *Integration*: Ability to apply collective problem-solving procedures to complex sustainability problems to develop strategies and successfully implement them, in collaborative and self-caring ways.” (Adapted from Redman and Wiek, 2021, p. 6)

Participants were also asked for any further comments or thoughts on their choices in an open-ended format.

As the majority of the data collected was qualitative (open-ended survey responses) the analysis was primarily done using thematic analysis - a method where the researcher can “get a feel for the whole text by living with it” and allows for “intuition and sensing, rather than being bound by hard and fast rules of analysis” (Savin-Baden & Major, 2013, p. 440). This sense-making was first done with initial or open coding – whereby the researcher reads through the data line by line and makes codes or notes in the margin, followed by a second read through of the data with preconceived codes which the data is related to – a version of axial coding (Savin-Baden & Major, 2013). With constant connection of the codes back to the literature themes were developed. A theme is a “unifying or dominant idea in the data and finding themes is the heart of the data analysis process” (Savin-Baden & Major, 2013, p. 427). The themes that were identified in this study are presented in the Results and Discussion section.

3. Results and Discussion

In this section some reflections on the course as a whole are presented, followed by a description of the key learnings that the students identified through their survey responses. After this will follow a discussion and showcasing of the impact, descriptions and images of the CAP projects; a discussion of the potential value of the project to build key sustainability competencies; an evaluation of the pedagogical elements of the CAP; and finally, recommendations for educators interested in applying the CAP in their own context. Direct quotes from participants are used to better illustrate findings in this study and are represented in italics and quotation marks.

Reflections from participants on the project were extremely positive. The final question in the survey asked for any other reflections not shared already, and the vast majority of them said variations of “thank you”, and that this project gave them the “mandate” to do or complete something they had wanted to do but would not have otherwise taken the time. One response: *“This was my favourite project of the year. I loved it so much. I learnt so much”* and another who had struggled with the project along the way, described how life changing the CAP was for her, discovering the many ways to approach sustainability that were more creative than her current life path: *“I have started studying something new and completely different... thank you for helping me on this path!”* Some described the challenges of doing the project – of stretching their comfort zones – and some had suggestions for improvements for future iterations. These will be discussed further below.

3.1 Themes of Key Learnings through the CAP

The key learnings identified by participants through the CAP can be summed up in four themes:

- *Communication* - the value of artistic and creative expressions to communicate sustainability, and that communication is two-way (speaking and listening)
- *Concrete* - the empowerment of ‘being embodied’ and creating something ‘concrete’
- *Courage* - the challenge of expanding comfort zones and the courage that requires
- *Creative thinking* - the revelation of how many creative ways sustainability issues can be tackled.

The benefit of creativity and the arts in improving communication for sustainability was mentioned by many respondents. Some described how they felt understood by others in ways they had not before: *“others around me seemed to understand me and my vision more clearly”* and *“I learnt that making change for sustainability can be effectively achieved through creative means and sometimes it can be more impactful or it can resonate with a broader population than technical or academic language/theory”*. One suggested that *“...arts are a powerful language that speaks directly to the heart,*

not being so questioned by the rational mind". Another responded that they learnt to talk about this dark and difficult topic of sustainability through engaging humour and laughter through in stand-up comedy training "*...made me think a lot of how to talk about something that you love and believe in a different way*". Communication is of course two-way. There were other students who realized through the CAP of their need to listen more to others in their communication, to understand the perspective of others who they were hoping to influence and relax "*... like I never relaxed in my life and abandon completely the selfish hope to change a system the way I want it*", to invite others in, and this realization "*changed me a lot in terms of how I approach my change-maker role in the world*". Communication at its best requires the mouth and the ears, and of course only existing in relationship. The ability to both speak in mediums or "*languages*" that others understand or engage with more easily, and to listen more openly to the world around and co-create a sustainable future are qualities much needed in us all.

Many students used the word "*concrete*" to describe their key learnings through the CAP and how "*grounding*" it was to be "*... using my hands, moving my body and using my creativity in something more concrete and tangible...*", and "*...I believe these activities will support me doing my sustainability consultant work*". Another described it as empowering "*... to see concretely things emerging that I have created myself. I felt my potentials as a human being/sustainability leader got nurtured*". The creation of something real and tangible in the world – a product – was a "*mandate*" through the assignment, but the realization of many students was around the intangible benefits and learnings of engaging in the process of creating a thing, and the application of this into their everyday lives and work.

There are challenges of inviting students to stretch their comfort zones and engage in creativity and the arts and this requires courage. It became obvious that many have had bad experiences with this in the past – for example of being told by art teachers that they were not good at art or judged on the product, not encouraged in the process of creating. Others spoke of "*not being particularly creative*" and or not knowing where or how to start. In the class sessions, the one-on-one coaching sessions, in the CAP assignment description, the focus was on process, on expanding comfort zones with a playful attitude of trying something you have always wanted to, encouraging students to "*stretch yourself towards new ways of thinking, being and doing rather than producing an intervention or creative work of the utmost 'quality', 'beauty' or 'success'*". Many mentioned the fact that assigning the project as a requirement was a way for them to push beyond their inhibitions, and then the realization that "*creativity does not have to be perfect or good, it is just about starting it*". The lessons and the benefits of doing the work then opened up, mainly that there are many creative ways to tackle sustainability. Courage is an essential quality for sustainability change agents (Ayers, Missimer, & Bryant, n.d.; Mouritz et al., 2022), and 'building this muscle' through the CAP is an additional benefit.

Creative thinking about sustainability challenges is an essential quality moving forward (Newman-Storen, 2014; Patton, 2018). For many students an outcome of the CAP was the realization of the variety of ways that they can address sustainability challenges in their lives and work. One student said:

“By the end of the course, not only was I able to see the possibility of approaching sustainability in a different way as I was doing it, but also I saw the great potential for impact that a creative intervention can have when it is set in the direction of sustainability efforts. And at a personal level but connected to what I was saying before the course broadened my perspective of what a creative endeavor is.”

The CAP provided an opportunity to practice creativity and think creatively, expand their comfort zones through building courage, and produce a concrete intervention in their lives for sustainability.

3.2 The Creativity Projects and their Impact

There was a large variety of initiatives undertaken through the CAP, and the sheer diversity of approaches to solving sustainability challenges creatively was inspiring for many. To quote one survey participant the course “...made me see the possibility of approaching sustainability from other fields and disciplines...”. These projects took place all across the globe and often involved, parents, spouses, children, roommates, workplaces and neighbourhood and/or online communities. Examples of some of the projects include:

- Making seasonal decorations with the family from things that come from nature and can go back to nature, reducing waste and increasing connection to and time spent out in nature (instead of buying them from the shops, often made far away and in plastic)
- Crafting a compost bin out of recycled wood with the children in the hopes of teaching the family a “*new normality*” in which “*...waste is a human concept and doesn’t exist in nature and shouldn’t exist in society*”
- Drawing and painting an image of an alternative future vision for an international environmentally and socially sustainable tourism facility in Zambia’s with this as a main economic force as opposed to the destructive copper mining that currently exists
- Making handmade soaps and giving them away as presents with a sustainability message: “not having to buy plastic, knowing what is in it and not having micro plastics”
- Cooking a “*Carrot Greens Pesto*” dinner for a group of diverse friends and discussing cultural differences around which parts of the vegetables you can eat, buying vegetables in plastic, and ways to reduce food waste.

The images below showcase some of the projects. Figure 1 demonstrates the reuse of old clothes to give life to them with the hope to inspire others to make children’s clothes out of ones that are old and broken. Figure 2 shows a children's book co-created with the family in an attempt to communicate what can be very complex sustainability concepts to children, with the hope of publishing the book and thus increasing its impact. Figure 3 shows a neighborhood engagement installation inspired by the story of

the Hummingbird which does its part to put out a fire... or, make its world a little bit better. This project invited others in, to reflect and share, their hopes and “fires” as well as bringing beauty to some particularly “ugly and dirty parts of the neighbourhood”. Figure 4 presents a CAP using non-fungible tokens (NFTs) to register images of nature. This student was curious to learn more about “*blockchain technology, decentralized finances, gamification and how we can hack this future tech world and use it for creating more positive impact for a more sustainable and just society*”. The aim was to hack this new technology and connect people to nature this becoming more conscious of it and how it is constantly transforming before our eyes.

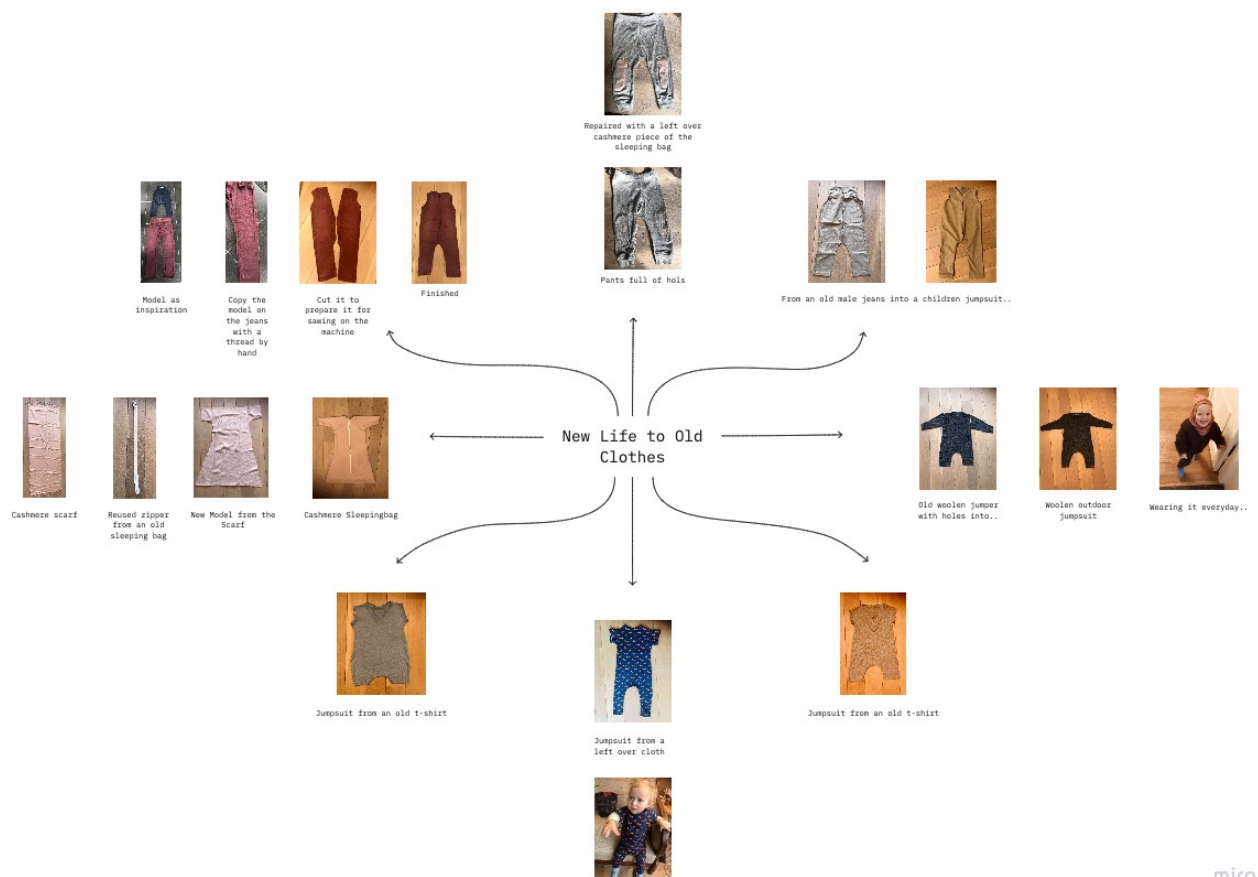


Figure 1. *New Life to Old Clothes* by Sophie Vrolijk.



Figure 2. Children's Book '1,2,3 Yeah for Sustainability!' co-created with family (A. Jannink)



Figure 3. 'We can all be Hummingbirds' a neighbourhood engagement and visioning installation by Carlotta Cataldi.

Creativity in Action - Nature Collection NFTs

May 10, 2015–Jan 11, 2022

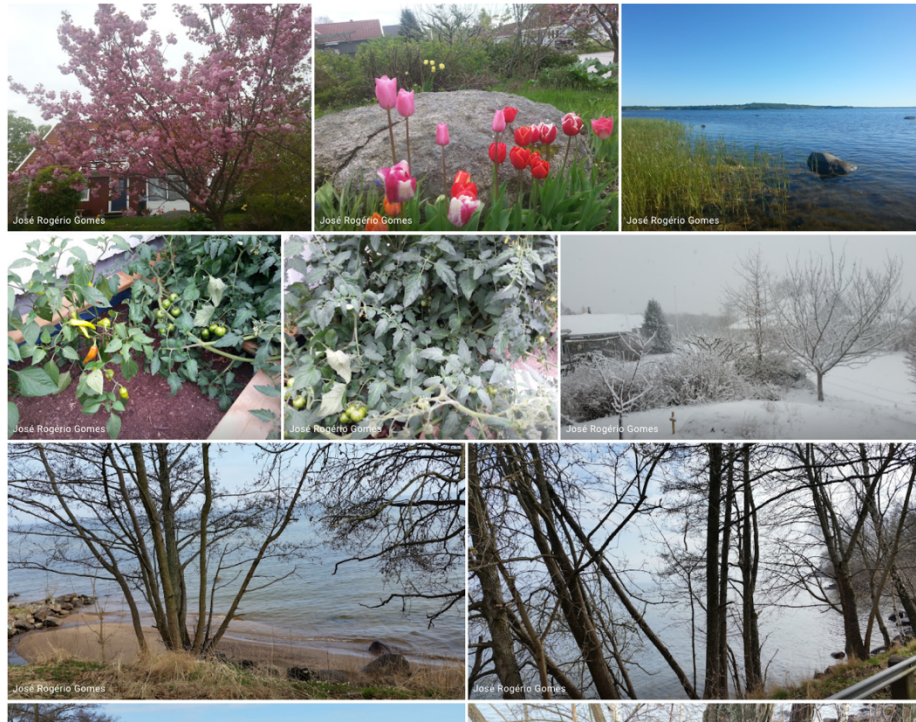


Figure 4. Nature Collection NFTs by Telma Gomes.

In describing the impact many of the students answered that what they had done was “*not enough*” or that they had hoped to have made more impact for sustainability on more people. One participant said: “*I am unsure if I actually made much of a change but sometimes you can only see the effect of that later on*”. But many of them also talked about the “*little seeds planted*” by their work, that it felt like a beginning of something new and their desire now to do more.

3.3 Key Sustainability Competencies and the CAP

Much academic literature has described and defined the Key Sustainability Competencies desirable for sustainability graduates and the most recent and well known and cited work describes 8 competencies (Brundiers et al., 2021; Redman & Wiek, 2021, 2021) which are articulated previously in the Methods section. In designing this project an intention held by the staff was to encourage the students to “go out and make change in the world”. An assumption I held was that students would find it beneficial support for Implementation competence – the ability to put into action sustainability strategies and action plans, including implementation, adaptation, transfer and scaling, in effective and efficient ways. The results which can be seen in Figure 5 show that most students did find the CAP supported the development of this competence, and indeed all the competencies but particularly that the CAP assignment supported the development of their Intra-personal competence – one of the newer identified competencies which

speaks to the ability to avoid personal health challenges and burnout in advancing sustainability transitions; and Values thinking competence.

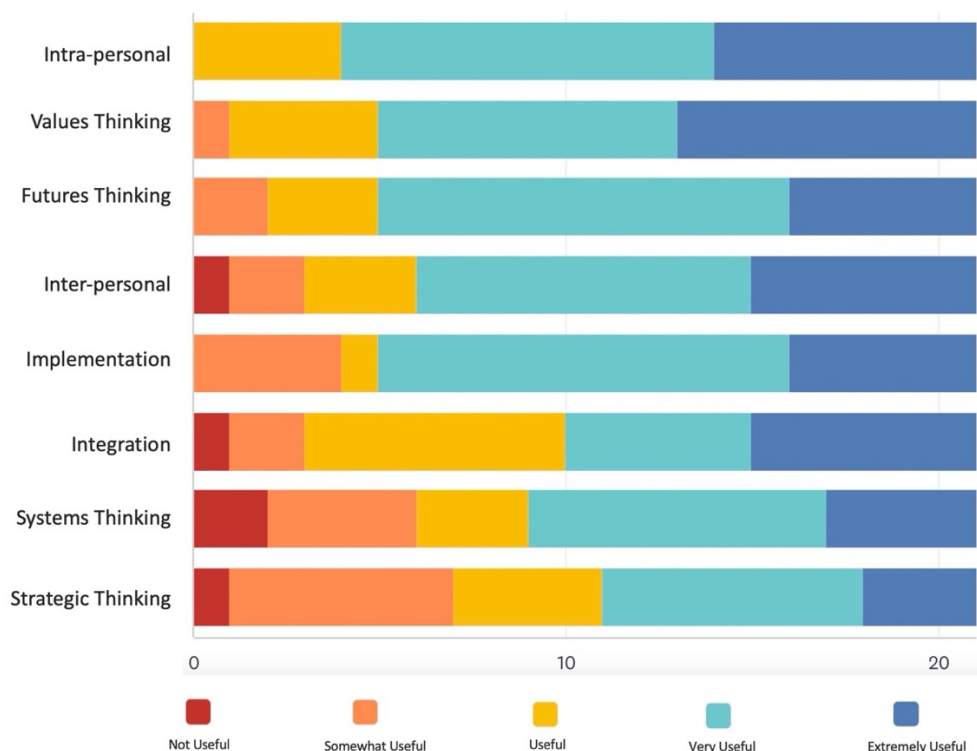


Figure 5. *The Creativity in Action Project’s Support in Developing Key Sustainability Competencies According to Respondents.*

All 21 indicated they thought the CAP was “Useful”, “Very Useful”, or “Extremely Useful” to support development of the Intra-personal competence. As one of the ‘newest’ Key Sustainability Competencies, researchers still grapple with what the Intra-personal competence actually consists of (Brundiers et al., 2021; Redman & Wiek, 2021). A recent paper currently under review by Ayers, Missimer and Bryant called “The Dark Matter of Sustainability Leadership—Intrapersonal Competence for Sustainability” describes in more detail what these may be. Many of the key learnings identified by participants in the CAP are similar e.g.: Courage, flexibility and open-mindedness, the ability to let go, humility, to honour diverse perspectives, to cultivate optimism and hope are all elements represented in both, suggesting that the CAP is a useful pedagogy to support Intra-personal Competence development.

Values thinking is the ability to apply sustainability values, principles, and goals to assess the sustainability of current and/or future states, and is suggested by some as a pre-cursor to all the other sustainability competencies (Brundiers et al., 2021). One participant’s quote describes this exactly: *“developing a creative project that is out of your comfort zone, contributes a great deal to knowing ourselves, knowing the values we hold, what we care about, what moves our hearts and inspires us.*

This clarity can then be expressed in many activities or tasks that we do within the sustainability realm (strategies, planning, connecting to others, etc.)”. Figure 5 shows respondents also see the CAP as a supportive pedagogy to develop this competence also.

Brundiers et al. (2021) suggest learning objectives for educators to use that can support the development of the Key Sustainability Competencies. The results, impact and feedback of the participants in this study links the CAP with some of these learning objectives. One such example is the need to integrate values into scientific inquiry to counter the positivistic perception that values are outside of science. Achieving this desired learning objective to develop the values thinking competence can be seen in the CAP, with the integration of values into creatively solving sustainability problems. This can be seen from the results in Figure 5, and some of the quotes from the participants that have already been shared, who discuss the realization that they needed to clarify their own values, as well as engage with and listen to others to create a more sustainable world (in particular, see the section 3.1 above on Communication). A further learning objective that is recommended is that sustainability is a solution-oriented field, and that it must be done with stakeholder engagement (Brundiers et al., 2021). The CAP scaffolds the learning of both of these objectives as it requires students to initiate a creative solution to a sustainability problem in their own lives and world. Although not essential to engage others in the creative process, the intended impact is on creative change on others. A learning for many through doing this project was of the need to invite others into the project or process, as the realization that the *“selfish hope to change a system the way I want it”* is not the way to make change in the world and was the inspiration for the beautiful community engagement ‘We can all be Hummingbirds’ creativity project.

Results indicate that the CAP was experienced by most of the students as a useful assignment to develop the Key Sustainability Competencies, but it will of course depend on how people approach the project. As some students reflected, if the intention is to build these competencies, then framing the CAP with these in mind would allow the students to craft their projects accordingly.

3.4 Pedagogical Elements of the CAP

The feedback from the students suggests that doing the project, sharing the project with others and witnessing their projects were the most important parts for most respondents. Figure 6 outlines the responses in the order of the elements of the delivery of the CAP.

The main two recommendations for future iterations of the CAP are to have a more ongoing presence of the project throughout the year and to have “Creativity Coaching Buddies”. The course was year long (Jan 2021 – Jan 2022). The CAP was introduced at the beginning of the course through an introduction video, and the webpage. There were two 2-hour class sessions focussing on the CAP in March and September 2021. The option to complete and submit the CAP was available the whole year,

however there was only one final Showcase/Exhibition Event (online) which was at the end of the year coinciding with the due date for the CAP. This was mainly due to staff availability, and the fact that the project was a small part (2.5 credits) of a larger course (15 credits). One suggestion to provide a more ongoing presence of the CAP might be to have a mid-year Exhibition event where half or some students present. The class could be split into “*batches*”, one at the midway point and one at the end. Alternatively, prototypes could be shared at various points along the year. Making sure to remind students of the CAP in every online session (these happened once every fortnight) would also help.

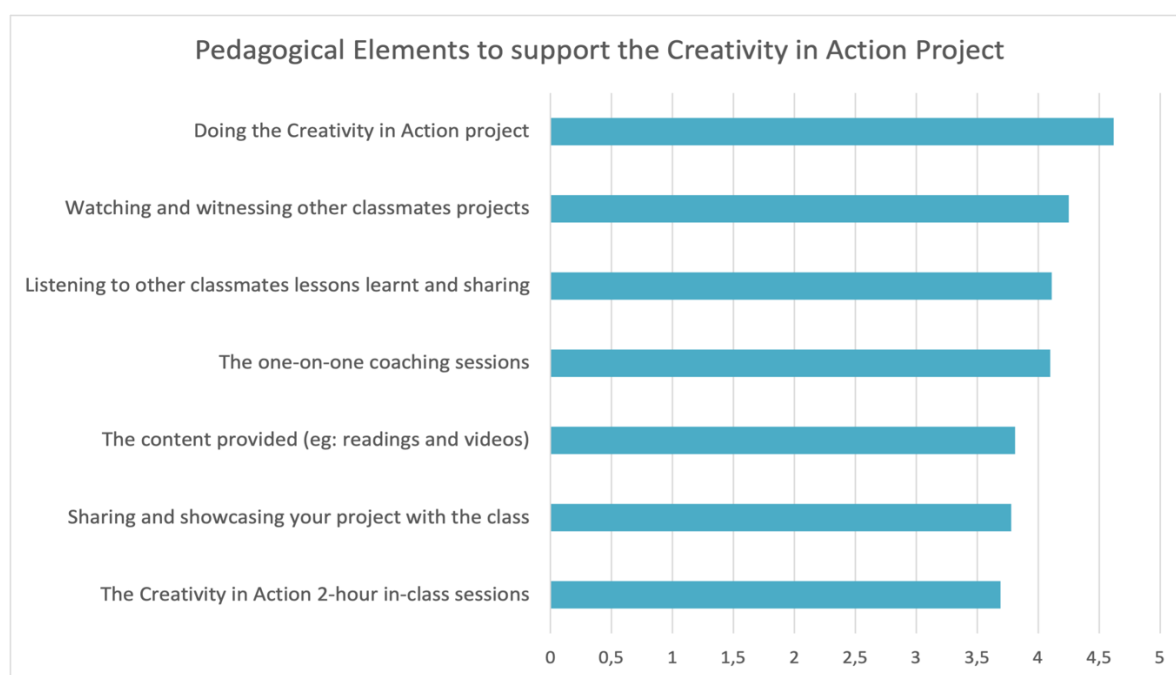


Figure 6. *Pedagogical Elements to support student learning in the Creativity in Action Project and their ‘usefulness’.*

The “*Creativity Coaching Buddies*” or peer support structure is another way to help students keep each other motivated and moving towards something that for many will stretch them out of their comfort zones and require courage. As many expressed finding inspiration and learning from witnessing each other present their projects this sharing of those earlier in the year could help inspire those still stuck on what to do. As the key learning is doing the project this might also support students who may not have made it to the end of the course and complete the CAP in case this was a factor in them not completing the course.

This study looks at the CAP within a distance learning course, and it is worth noting that in the course which provided the inspiration is taught both face-to-face and online suggesting the pedagogy can be adapted to distance, face-to-face or hybrid settings (see: Mouritz et al., 2022; Newman-Storen, 2014).

3.5 For Educators of Sustainability

Creativity and sustainability as essentials for global and economic survival and for individual wellbeing (Jones, 2013) and the future of higher education requires educators across all disciplines to develop capacity in teaching sustainability ('DECODE Sustainability – European Deans Council for Sustainable Development', n.d.; GUNi Network, 2022). This paper presents a creativity-based assignment as a valuable pedagogy for educators for sustainability. The CAP is an assignment that could be used in many fields and disciplines with simple elements. From personal experience I can say that it is a pedagogy that can be used even if you don't identify or feel 'creative' yourself. Two students implemented a similar project for their own students to do.... which gave them courage to do more themselves! One responded that when watching their students in Russia and *"how brave they were"* in their creativity projects *"...the idea started growing in me that me myself could also use this as an extra push to actually go to that open mike and try to write something"*. By encouraging students to *"use this project as a chance to do something that you maybe would never do..."* the teacher's courage grew. Thinking and literature around creativity proposes that the product must be something of value (Wreen, 2015) which brings up the questions of value to whom and evaluated by whom? This paper argues that the experience of engaging in creative work provides impact and benefits in both the inner and outer realm that are impossible to measure, and the process and press of challenging oneself to step outside one's comfort zone and 'get creative' can be the gift in and of itself.

4. Conclusions

Education is seen as a key leverage point to shift society towards sustainability transformations however as with sustainability approaches in general, the potential of creativity and the arts remains untapped as a tool, topic, process, pedagogy and way of thinking in ESD. This paper presents a creativity-based assignment as a valuable pedagogy for educators, and findings demonstrate realization of the students of the value of creative expressions as a tool for communicating sustainability; the empowerment of creating something 'concrete' and tangible; the courage of expanding comfort zones and the benefits of doing so; and the practice of creative thinking and the revelation of how many creative ways sustainability issues can be tackled. Descriptions and images of the projects are shared to provide concrete examples for inspiration and future iterations. The potential value of the CAP to build key sustainability competencies – particularly the newly identified Intra-personal competence is discussed. The intention of this study is to provide educators and learning designers with inspiration and a practical, adaptable, and impactful pedagogy for the development of sustainability leadership that could be used and adapted to various contexts and recommendations for educators interested in applying the CAP in their own context. It is hoped this will in turn support societal transition towards sustainability through empowering students to be sustainability change agents by applying their creativity to solve a sustainability challenge in real life.

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