

Imagining Sustainability: A Nomadic Inquiry of Applied Drama in Higher Education CORRECTED PROOFS

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Abstract

Drama has been described as a powerful method in teaching difficult, multifaceted, contradictory issues loaded with values and emotions, such as those concerning sustainability. This chapter explores how drama can contribute to the necessary renewal of higher education to meet the sustainability challenges of our time. Results are presented from a drama-based research project in higher education,

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and in a youth project. In the chapter, so-called nomadic enquiry is combined with an arts-based approach to participant interviews. Through this innovative method, an image of a rhizome emerged. This *rhizome of expanded learning* highlights five necessities or critical nodes for expanded sustainability-oriented learning: *emergence*, *expansion through role*, *embodiment*, *connection to self and others*, and *crucial conditions*. The rhizomatic perspective not only shows the transformative potential of drama in higher education and adult learning but also identifies the levers and barriers teachers, students, and the academy as an institution are likely to encounter when trying to move towards a socio-ecologically more civilized world. The results point to how the integration of knowledge and wisdom that are striven for in the philosophy of ecological civilization can be put into pedagogical practice through the holistic learning of drama.

Keywords

Applied drama · Rhizome · Arts-based research · Environmental and sustainability education · Nomadic enquiry · Futures

Introduction

Science is pointing to the need of deep transformations of our societies in order to sustain living conditions on the planet (IPCC 2023), and according to UNESCO (2017), education will have to play a key role in this shift. Higher education is said to be on a crossroad between continuing the current path of education aimed at wellbeing of the economy and a path of transition towards new types of collaborative research and learning aimed at well-being of people and planet (Tassone et al. 2018). Haraway (2016) encourages each person to become capable of responding to difficult and unpredictable times, claiming that "our task is to make trouble, to stir up potent response to devastating events, as well as to settle troubled waters and rebuild quiet places" (Haraway 2016, p. 1). This chapter explores drama as a teaching method in building such capacities.

Transformation Through Art and New Ontologies

In the last 30 years, there has been a growing interest in the connections between art, education, and sustainability (Wall et al. 2019a). Hunter et al. (2018) put forward arts education as a way of teaching that is in line with successful sustainability education as it "offers students safe experiences of change while developing the capacities to make change" (p. 15). Although not being a sole solution to the changes that are needed in higher education, scholars suggest that arts-based approaches play an especially important role in teaching concerning open-ended, uncertain, and sometimes fearful issues, such as environment, sustainability, and future scenarios (Eernstman and Wals 2013; Heras 2022; Lehtimäki et al. 2024).

In the field of transformative learning (Mezirow 2000), teaching for radical educational changes has been explored. Transformation is described as a shift where the learning goes beyond altered perspectives, and it implies "an ontological change—a change in one's way of being in the world" (Green 2022, p. 106). Lange (2018) shows how a relational ontology following Barad (2007) and understandings from quantum physics can move the field of transformative learning further. Ecological civilization with some of its philosophical underpinnings rooted in Daoism which sees all things as interconnected parts of the Dao (道, "the Way") also essentially advocates a more relational ontology (Kohn 2019). Ecopedagogy with its acknowledgment of "the non-anthropocentric sphere" (Misiaszek 2021, p. 19) also reflects this relationality and a decentering of the human. Understanding how one is embedded in all that is going on in the world is an ontological and epistemological shift that Lange describes as "the deepest form of transformation" (2018, p. 291). In this chapter, the arts are not only explored as a means to support relationality and our entanglement in the world but also as a way to bypass emotional barriers often associated with sustainability learning (Wall et al. 2025).

Drama as Potential Resource Towards Educational Renewal

Drama refers, in this chapter, to the arts-based teaching method also known as applied drama. It is a collaborative, highly interactive teaching method, which has been shown useful for shifting perspectives and including values and emotions, as well as facts, in teaching (DICE 2010; Gjærum et al. 2022). There are rich examples from higher education across the globe that show the potential of drama practices in sustainability teaching and how they can contribute to the renewal of our educational systems that is being called for (Avsar Erumit et al. 2024; Brinia et al. 2019; García-Puchades and Martos-García 2022; Lehtonen et al. 2020; Österlind 2022; Wall et al. 2019b, 2025). Drama offers possibilities to rehearse for alternative ways to act and builds agency to make impact in society (Boal et al. 2019). In drama, there are multiple tools to produce imaginaries for wanted futures and explore paths to that future, and it has been used as a "ecopedagogy in action" (McNaughton 2010, p. 289).

Österlind (2018) shows how drama can contribute with an increased sense of self-awareness, critical reflection, and possibilities for transformation in teaching for sustainability in higher education. In line with this, Lehtonen et al. (2020) portray how collective and embodied encounters of drama can strengthen our sense of connection with ourselves, each other, and the world around us. Drama can thus be a remedy to the culture of disconnection and separation, which, according to Lehtonen et al., is underpinning the sustainability crises. So, while there is a lot of, mostly anecdotal, support for the power of drama as a catalyst for educational renewal, empirical research on what characterizes "drama-in-action" when working with sustainability education is scarce. This chapter sets out to provide *understandings of learning through drama in teaching aimed at imagining alternative and more hopeful futures*.

Search for Learning Towards Hopeful Futures

This research has unfolded from the vantage point of a relational ontology (Barad 2007) and has been inspired by the notion of nomadic thinking of Deleuze and Guattari (1987), further developed by Braidotti (2012). The teaching described here aimed at looking beyond the current economic paradigm of late capitalism (Klein 2008, 2015; Mandel 2024) and open for new thoughts. The teaching is understood through nomadic theory which in line with Daoism (Kohn 2019) and notions of an ecological civilization (Gare 2016) breaks with stable identities, old ways of thinking, and resists "a linear vision of progress" (Braidotti 2012, p. 209). In nomadic thinking, the body-mind dualism that pervades our Western thinking is questioned. Braidotti describes nomadic subjects of knowledge as located on a continuum between body and mind, and these subjects are "embedded, embodied and yet flowing in a web of relations with human and non-human others" (Braidotti 2019a, p. 34). Using an artsbased approach in the teaching, the analysis, and the presentation of research is an attempt to make room for these complexities. This also means that the method and analysis have been an entangled process that cannot be cut up into pieces. In this way, the chapter gives a methodological contribution in its attempt to explore how arts in research can complicate and open up for deeper questions regarding teaching around issues filled with insecurities and instabilities, and be part of "creating a less oppressive, ecologically sustainable global civilization" (Gare 2016, p. 160).

Method

A series of drama-based interventions were carried out in teaching aimed at enhancing creativity in relation to imagining future sustainable economies and the wise use of resources. The drama work was facilitated by the first author (Julia) as teacher-researcher in two different educational settings.

Drama Work in Two Settings

One setting was the university course Sustainable Economic Futures—Nature, Equity and Community (15 credits), running half time at *The Centre for Environment and Development Studies (CEMUS)*, a student-initiated, sustainability-oriented education and research center based at the University of Uppsala and the Swedish Life Sciences University. The research has been submitted to the Swedish Ethical Review Authority which had no objections to the research plan and found that the research did not process sensitive personal data. Naming the places of the research was a trade-off between the risk of exposing participants and the wish to acknowledge the organizations actively taking part in the research. The fact that the personal data is not considered sensitive, that the study's focus is not on the participants themselves but on their experiences of the drama work, and that the risk of recognition is low based on how the material is presented, led in consultation with the organizations to the choice of naming them.

Four drama sessions of 2.5 hours each were developed to be incorporated in the curriculum of the course. This work was implemented in two iterations, in the spring semesters of 2020 and 2021. Number of students in the drama lessons varied from 15 to 37, and the attendance in drama was equivalent to that in other sessions in the course. A total of 65 students participated in at least one of the drama sessions and 49 of these contributed to the research through interviews after the sessions and/or through being recorded during sessions and sharing writings produced in class.

The second setting for the research was the theatre group Teater K and their youth project Scenario 2030, which was working with envisioning sustainable economic futures. The participants (aged 17–25) joined the project during their spare time. Many were already engaged in environmental organizations or activism, and for others, working with these issues was quite new. Empirical material was gathered from two groups. One group participated in an online course (n = 12), and they met virtually five times, 2 hours each time. The other group met face-to-face during 4 days in a summer camp (n = 8). Of these 20 persons, 10 contributed to the research through interviews after the drama work. No audio or visual recordings were made during the drama sessions in this setting. Both groups in the project received similar teaching content wise, but naturally the work took different forms as many circumstances differed.

Central Drama Elements in the Study

Warm-ups consisted of games and physical activities to invite flow in the body and between participants. These warm-ups varied and were chosen to match the group, the upcoming content, and the space we worked in.

Body awareness and visualizations were used to let participants connect to their own hopes, fears, and images of the future. In one exercise, participants were asked to feel into how they are affected from living in this economy and what it would do to them to live in their ideal economy, including effects on posture, breathing, and gaze.

Still images were used to sum up discussions in small groups, as well as to let the personal visualizations described above take physical form in the group and develop into brief joint performances.

Being in role in the future allowed the participants to dwell in a state where things already had gone well and experience that. The intention was to bypass the hopelessness felt by many when looking at the future from the present and instead release creativity and ability to see possibilities for change.

Collective poem writing was a way to sum up and create art of what was experienced when being in role in the future.

Artwork visualized the institutions that would carry the new societies participants were longing for and to clarify thoughts through the collaborative work of creating something tangible. This was only used with participants that met on site.

Role-play was used to let participants step into a fictive world that was governed by participatory economics.

The Empirical Material

The material that the analysis rests upon consists of filmed material, photos, text produced by participants, recorded interviews and conversations, as well as the lived experience of the first author of facilitating. Interviews and conversations between participants (n=36) from the four groups described above were recorded and transcribed. All who volunteered to be interviewed were included, and no selection was made. The remaining 49 participants did not respond to the interview invitation. The material produced by the first author can also be viewed as empirical material, created as a part of analysis and becoming new material to analyze. The art is thus entangled artifacts of analysis, empirical material, and result.

Concepts Supporting the Analysis

The plant metaphor of the rhizome (Deleuze and Guattari 1987), with decentralized structures of interconnectedness, is used in the analysis to encompass the entanglements of the drama work and participants' experiences. Rhizomes are, according to Deleuze and Guattari, nonhierarchical multiplicities; any point in a rhizome can be connected to any other point, they have many entrances, and they change through making connections to other multiplicities, other rhizomes. Rhizomes in nature have an ability to grow new shoots from nodes anywhere along the system. From its nodes, the rhizome has the possibility to send shoots above ground to produce grass, leaves, flowers, and fruit. A node is a place of connection with much energy and potential. Such places have been searched for in the research material and in the analysis they have been conceptualized as nodes.

Another concept from Deleuze and Guattari (1987), "line of flight"—that speaks of things taking a new direction, flying, leaking, or slipping off, out of its current rhizome or position to make new meaningful connections—is used to look out for the unpredictable and new openings created through drama.

Method of Analysis

The recorded material was first approached through a conventional qualitative analysis. All interviews were transcribed and coded. A manual process of coding and analyzing was undertaken with transcripts on paper, notes/codes made in the margins, and utterances sorted in piles. Later, the transcripts were coded again in the software program Nvivo. In two iterations of analysis, one manual and one digital, different aspects of the drama work were divided into themes. However, this division did not reflect the entanglements of the material, and a new iteration of analysis was performed. Now, the material was approached with nomadic thinking where things are understood to be in a constant process of becoming (Braidotti 2012) and with attention payed to interlinkages between that which seemed significant to the participants. Poems and letters written by participants were read in the light of

what participants expressed in interviews. The analysis was now also approached through an arts-based process of playing with clay and threads. This was a way to think not only through the mind but also through the body, and to let thoughts and conclusions take physical form together with the verbal articulation of understandings. In the end, this physical work became an art piece that is an integrated part of the result.

The drama practice came through the analysis to be understood as rhizomatic (Deleuze and Guattari 1987). In the interview material, there is overlap and there are connections; participants mention and come back to aspects that seem significant to many but connect them to different parts of the drama work and refer to other understandings and experiences. Instead of trying to separate these aspects and distilling them, this analysis tries to acknowledge their complexity and something new becomes visible. The nodes were articulated from areas in the research material which in different ways carried significant energy, came back many times in participants' stories, or had many and meaningful connections. These nodes were given names and the form of clay figures connected with threads (Fig. 1).

The written result is presented together with photos showing figures of clay and the threads connecting them. Important here is that the artwork is not an illustration nor an interpretation of the analysis, but it is an analysis in itself. The results are described in relation to the images, but the images also describe dimensions that are beyond words. The rhizome made with clay and threads is a three-dimensional translation and interpretation of the participants' words in the interviews and conversations, of the filmed material and photographs, and of Julia's own memories and experiences. The analysis is a craft that continued through taking photographs of the three-dimensional images and choosing which photographs to include in this chapter. Finally, the entanglements of the photographs and the written text all contain choices that produce the result. Below, the images are also accompanied with small poems intended to add additional layers of understanding.



Fig. 1 Nodes and human figures in the rhizome

The rhizome portrayed here is not in any way complete, and all the dimensions of what was going on in and through the drama practice cannot be portrayed here. The research apparatus of the study has made some things visible and others invisible to us as researchers. Additionally, some things have consciously been included while others excluded—choices guided by our research interest and the research questions. Research does not only describe reality but also is part of creating it, and choices of inclusion or exclusion are one aspect of that creation. This is what Barad calls "agential cuts" (2007, p. 148); to decide where to make these cuts are analytical choices. The understanding of drama as expanded learning slowly emerged out of several iterations of analysis, approaching the material in different ways and from different angles, but it is a construction based on the material, made by us as researchers. Rather than to give definite answers, the intention here is to open up the conversation on how arts-based methods in education, as well as arts-based methods in research, can contribute in the knowledge creation towards sustainable futures.

The Rhizome of Drama as Expanded Learning

The analyzed material shows in several different ways how teaching through drama expanded the participants' learning experience and the learning outcomes. This is here articulated as *The rhizome of drama as expanded learning* (Fig. 2).

The artwork showing the nodes in the rhizome consist of seven clay figures that have some resemblance to human bodies. They are all connected with threads that runs through them and over them. Around the seven figures, five human clay figures are standing and sitting, representing the participants in the drama work (Fig. 3a–e).



Fig. 2 Seven nodes, early in the process of creating the rhizome

Fig. 3 (a–e) Clay figures representing drama participants



Fig. 4 The tempory central figure in *The Rhizome of Expanded Learning*



The rhizome is formed from that which is taking place between and through the participants, things that are real albeit not things one can smell or taste or touch. The threads in the image of the rhizome can be understood as all the things going on during the drama practice. This includes interactions between the different actors involved in the drama work and the participants, the physical space, the digital realm, the teacher-researcher, and the movements, flows, ideas, affects, and emotions that emerge from these interactions. The threads can also be understood as the ways in which the participants describe their experiences of the work, and these words that they express have in my interpretation come together to form nodes—the clay figures—that together tell the story of expanded learning. There is no hierarchy between the different figures, albeit some are more dominating in the material than others are, while some have more connections and are more intertwined than others that stand more in the periphery of the image. With a rhizomatic understanding, where there is no periphery, only an ongoing sequence of new connections to be made from each position. Each spot in a rhizome is the center from its own position. However, for the specific purpose of this research, we have made analytical cuts to be able to look at something specific, and from that view, it may seem as if there is a center. The clay figure in the middle of the formed rhizome (see Fig. 1) is the largest one. It embodies the expansion taking place through drama work, the expansion that also gave name to the rhizome. This figure has at least one direct connection to each one of the other figures or nodes. The nodes described below together paint the image of drama as expanded learning. Thus, this figure can be understood as the center, but that is because this analysis centers around it, not because there is a de facto center (Fig. 4).

Below the five nodes of expanded learning, *emergence*, *expansion through role*, *embodiment*, *connection to self and others*, *and crucial conditions*, are presented.

Emergence

Sun through the window The light changes the scene New meetings Something unexpected What will emerge? (Fig. 5)

The participants express an understanding of learning through drama as creative and imaginative; unexpected things happen when drama is introduced. Drama is described as different, fun, and playful, which gives participants new ideas, thoughts, and perspectives.

Participants describe how new ideas and understandings are emerging between them as they go along. This is exemplified by Katarina, referring to an exercise where the participants worked in pairs and interviewed each other in the role of themselves in a desired future:

Katarina: It was cool to see how efficiently it [the drama work] encouraged spontaneity. And in the conversations where we interviewed each other, that we several times managed to achieve that we did not know what we were going to say before we expressed it. 'How I live?

Fig. 5 New things emerge when the sun comes out during the process of creating the rhizome



Well... I live, bla bla bla.' I mean that it was very spontaneous. And it was as if what we said gave us input in real time, something to later reflect on. (Quotes are, in some cases, translated from Swedish to English, and in some cases, English is the original language.)

In referring to the same exercise, Nellie even describes being surprised by the words coming out of her mouth:

Nellie: But then the interview process. It was really cool how you would like, the ideas were like only half developed in your mind. So then when you started to talk and you were like, oh, what did I actually do?

The participants describe how the teaching-and-learning situation contains elements that are new to them, which opens up their thinking along, for them, new paths. Their imagination is triggered and new things emerge. To be such in a flow that one is surprised of what is formulated is here understood as a "line of flight" (Deleuze and Guattari 1987) where thinking moves out of its ordinary patterns and creates new paths.

The image chosen for the node of emergence shows how the unexpected happens in arts-based work and how being in these processes develops our openness and attentiveness to when those moments occur. When Julia was taking photos of the figures, the sun suddenly came in through the window. New and unexpected things happened to the art; the shadows gave impulses to rearrange the way the figures were standing, and new meetings between them appeared. This is parallel to how the drama work allowed new things to emerge within and between participants and in line with the idea of constant becoming that is central to nomadic thought (cf. Braidotti 2012).

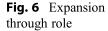
Expansion Through Role

I am stuck but longing to be free Threads pulling me Playing me, moving me Will I dare? In role new light falls on the old Opening up my brain Me but not me Surprise! (Fig. 6)

The emergence of new things described in the previous node is by participants linked to the different drama conventions such as reversing roles, doing role-play, making still images with the body, or moving the body. This node is focused on what happens through the drama resource of role taking.

The participants were able to see things in new ways through the different roles they played, and these new perspectives also gave hope.

Ella: I think it [the drama work] is very good in order to get multiple perspectives and more ways of thinking. Just to get those different perspectives and dare to see, also make things complicated. It's so easy to only think from how things are today. And if you look at the future then it's very dystopic. But if you get another role you can dare to think in new patterns.





Ella mentions "daring" twice in the quote above, signaling that new perspectives and new ways of seeing demands bravery. Letting things be complicated also points towards Haraway's notion of "staying with the trouble" (2016), and thinking in new patterns shows that drama might be one of the "inventive practices" (Haraway 2018, p. 102) that are needed to not give up in facing the sustainability challenges. Daring to think in new patterns, allowing "lines of flight" to make now connections, can be understood as a capacity to, for instance, question established norms. Participants speak of how their thoughts went to new places in the drama exercises.

Ella: It [the roleplay] was very fruitful and expanded the more we spoke. We started questioning everything, how stuck we are in the norms we live in today. But there is so much if you just dare to think about it.

Some participants linked the flow of ideas to the fact that they were in role when improvising:

Elin: It becomes different when you take on a role [...] it becomes freer somehow, you let it flow more than you would have otherwise.

In this node, participants seem to long for new ways of thinking and being, and are enthusiastic about finding ways out of their ordinary thinking. A "line of flight" is that which reaches out of its current assemblage, going beyond what it is in the present. It is seen in students describing how they think new thoughts and make new connections to old thoughts—something that being in role contributed to. However, it is first when a "line of flight" is connected to a multiplicity of other lines of flights that deterritorialization happens (Thornton 2020) and something new is formed. Signs of this were seen in the poems co-created by the participants in one of the sessions, but to see how new connections were made in relation to course content, societal movements and participants' lives would have needed another research apparatus.

Embodiment

I am moving. My body in the thinking Moving, thinking, learning Engaging I am here (Fig. 7)

Several participants speak of how the embodied parts of the drama practice captured other dimensions of an issue than conventional teaching. Things that are hard to grasp on the verbal level become visible in a still image or are made clear through a

Fig. 7 Embodiment



role-play. Lene and Janna's conversation highlights how the embodied aspects of the work contributed:

Lene: I think something with this embodiment [...]. There are these concepts and you can theorize about everything, but then we live our lives physically. But this is getting us moving, using our resources that we have inside, and I think also the drama makes, puts my body in the thinking, in the making, it gets me going.

Janna: [...] when we theorize, we come up with scenarios, or we look, we try to understand theories. That's using our mind, but in this kind of practice [we] also establish, however we go about, whatever theory we choose to actually, ehm, put out in the world and apply and make real, what do we want that to feel like. [...] I feel like we got sort of a chance to actually allow ourselves to become physical and not just these thinking machines.

Lene and Janna show how the mind-body binary that post-humanist thinking is trying to destabilize (Braidotti 2019a) is still prevalent both in the university teaching and in their own thinking. The embodiment also manifests a learning that is not always easy to verbalize.

Erika: It is hard to know exactly what I learned. It feels as if it goes deeper than just the top layer of knowledge [shows with her hands like a horizontal layer at the sides of her temples].

What Erika says relates to that Sofia describes below regarding the connections between feelings and thoughts and practices.

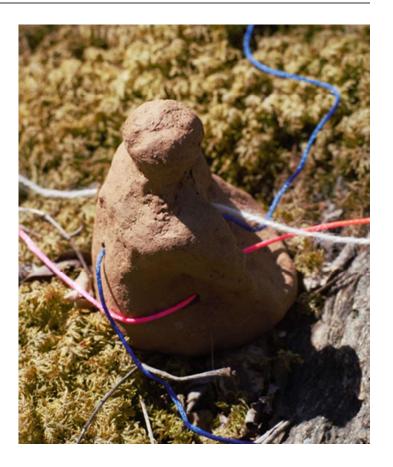
Sofia: I agree that, that kind of posture exercises [...]. I definitely think it helps you make connections between feelings and thoughts and kind of practices that you normally would not have made without that exercise.

This can be understood as if the practice of drama allows for rhizomatic connections to be made and learning may take place in nonlinear, nomadic ways. In this node, drama is understood as making possible the "embrainment of the body and embodiment of the mind" that Braidotti speaks about (2019a, p. 31). Embodiment also means an embeddedness, in one's community, in the ecology, and in the evolution (Braidotti 2012). How drama supported and created awareness of this embeddedness is presented in the following node, *Connection to self and others*.

Connection to Self and Others

Me, here. Connecting to me Learning with me Through me Here (Fig. 8)

Fig. 8 Connection to self



Participants describe drama as something that encourages them to connect with themselves in different ways. Drama is described as a way of teaching that affects the participants personally and offers a chance to "explore some new parts of yourself" (Erika). Participants acknowledge and appreciate that there was time and space to relate personally to the course content, which allowed theoretical content to integrate with their own experiences and ideas. This kind of teaching where participants are asked to connect with themselves is also put in contrast to how participants are used to being taught.

Sofia: I could also appreciate that you were just like, ok, but just go back to yourself, like, what are your spontaneous gut reactions to this, because there is not much room for those within academia otherwise.

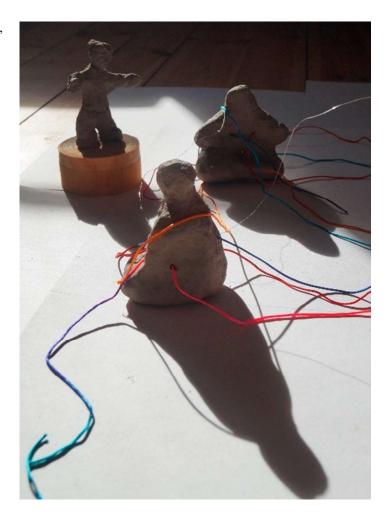
Bringing the knowledge closer to one's person also means integrating emotions in the learning, giving space and attention to what is felt. This seems to have been particularly valuable considering that the work was embedded in a course on sustainable economics, the knowledge of being in a very serious situation echoed in the background.

Erika: The drama parts have given some sort of inner relief, [from] all the thoughts that have been going on during the course. And when we've been able to act out, when we have been able to talk about how you imagine your future 2050, and that. Well, then it has felt as if it is easier to process all these thoughts that are going on in your head. So, I think it has helped me to clarify many heavy thoughts.

With a nomadic understanding, the subject is not an individual matter but something that evolves in relation, so while the participants above speak of their own experiences, these are embedded in the collective. In Braidotti's nomadic theory, the subject is seen as a collective assemblage where we are becoming together, through connections to others, humans, and nonhumans. The individuals' experiences of connecting to oneself also happen embedded in the group and the connections and safety established there.

We, here. Moving together, in and out Learning in support Support in learning Together (Fig. 9)

Fig. 9 Connection to others, picture from the process of creating



The social relations in the group impact how the work develops and participants emphasize how drama encouraged the group to come together, get to know each other, and feel safe together. This is also said to support the learning:

Didrik: I think that drama helps a lot to get a group to work well together. I think we have come each other very close thanks to the drama. There were many times when you actually needed to collaborate and help each other and work together. And that makes you come together as a group and I think that helps a lot when it comes to learning in general. When you have a community, a group that helps you, everything is easier.

Strengthening the group through drama was seen as especially important in relation to the fact that they were dealing with sustainability.

Anton: [...] there's a strong social element in this kind of pedagogy, which I think is good. Again, in all cases, but especially in this case [when facing sustainability issues], where you can easily feel overwhelmed or lost.

Other participants emphasize how being creative together in drama connects to the collaboration needed to solve environmental issues, which in turn relates to the nomadic subject embedded in its surroundings. This node points out how the participants are in a shared becoming through their "intra-actions" (Barad 2007, p. 33) in the drama work as well as in their relating to the world and cosmos as a whole (Braidotti 2012).

Crucial Conditions

Too fast
Too slow
Feeling uncomfortable
Confusion
Suddenly passing the threshold
Feeling safe

${\tt ExPANDING} \ \ ({\tt Fig.} \ {\tt 10})$

All the positive aspects of the drama work described by participants and the possibilities they point to also require things to be fulfilled. From an understanding of drama as a learning that creates expansion, it seems reasonable that there is some pain, or at least not only comfort, involved in the process. For expanded learning to occur, certain conditions need to be in place regarding the facilitator, participants, time, and space.

Sometimes the drama work does not come out as well as it has potential to, and in the interviews, the participants point out different aspects that could have given the drama work better quality. They also highlight the importance of certain circumstances being in place, without which the work would not have become as meaningful.

Fig. 10 Crucial conditions



Time is one aspect of the drama work that many participants come back to as significant in many ways. A desire for more time is expressed, and many limitations in exercises are referred to the limited time. Following Braidotti, time is not understood in isolation but embedded in the culture and institution where the drama work is taking place, it is happening in a "technologically interconnected society where the economy functions 24/7 and capital never stands still" (Braidotti 2019b, p. 7). This affects what the students long for but also their expectations on what there can be room for, as well as what is actually possible within the structures of a university embedded in the logics of capitalism. A wish to do more and go deeper is put forward in many participants' experiences.

Slowing down the pace is described as opening for the learning to expand. The fact that there was time to pause and reflect was appreciated and described as a valuable contrast to the high tempo we usually experience in society.

Astrid: I think that what I remember most is that it was important to take some time and just feel in, because that is something we never have time, or take the time to do nowadays.

Time was also needed in order for participants to understand the drama form and experience enough safety and freedom in the group to fully use it.

Sara: Yes, it's something so different so it's difficult to get into, at least the first times. My god, when we did this stretching together and dancing around! [...] So, the first time was very stiff, but then it became easier and easier. [...] It was a little threshold, at least for me personally, to get over.

Erika: Yes, the first time it was a little bit restrained, for me too. So, I am grateful too that we've had four sessions and not just one.

The leadership is another factor that demands certain things in order for the drama to work out well. That the sessions were led in a way that people felt safe to participate, and that an open atmosphere was built up between participants seem to have been

important. Together with time for people to get over the threshold of feeling uncomfortable, this allowed participants to fully take on the work.

Drama also demands things of the participants. There needs to be a willingness to participate, even though that often means taking a step out of one's comfort zone. Drama requires active participation and trust both in the group, the leader, and in that the work is meaningful even if the outcome of each activity is not clear at first. Only when there is openness and active participation, the potential of drama can be realized.

Katarina: And then as we said, that it is very efficient when you get to work from a role, if you also manage to throw yourself over the threshold and do it. So, I think that, since it is a quite unusual form, that it demands safety and trust and understanding of why you need to dare to throw yourself out there.

Harris and Holman Jones (2022) draws on Haraway and develops the notion of a "creative agency" (p. 523) that is enabled by the willingness to stay with discomfort, which relates closely to how participants describe their experiences. If the feeling of safety with the leadership and the group is in place, it is clear that the participants are willing to step into the unknown and expose themselves to some discomfort. This node shows that although drama does have the potential to be a powerful method in environmental and sustainability teaching, it is not a given, and many things need to be in place in order for this to happen. There are cultural and institutional circumstances that may complicate the introduction of drama and other playful approaches in higher education. Drama can be understood as a demanding form of teaching. Following Haraway's endorsement of making trouble, stirring up and allowing both pain and joy (2016), this is not necessarily a bad thing.

Conclusion

This chapter has given an example of drama teaching with young adults inside and outside of formal education, with the goal of moving towards an ecological civilization. Through a nomadic approach to the participants' experiences of drama and the research material as a whole, and by working with Deleuze and Guattari's metaphor of the rhizome (Deleuze and Guattari 1987), *The rhizome of drama as expanded learning* was identified. The articulation of the nodes, *Emergence, Expansion through role, Embodiment*, and *Connection to self and others*, contributed with understandings on drama as a resource in teaching that gives room for relational explorations and imaginative becomings. The node *Crucial conditions* show that positive outcomes are not a given, as unconventional forms of teaching challenges teachers, students, and institutional circumstances.

Working with an arts-based approach in the analysis, using clay figures, photos, and poems, made it possible to bring forward dimensions of the drama practice that were not visible in the previous text-based analysis. The entanglements between drama practice and clay figures became a form of knowledge production that

coproduce meaning and highlight our entanglement, while expanding the realm of imagination, possibility, and the unexpected. This conclusion aligns well with other recent work on relational pedagogies (Gravett et al. 2024; Wessels 2022), ecopedagogy (Bayer and Finley 2023), and assemblage pedagogies (Mannion 2020). As such, this study complements the anecdotal support with a more empirical practice-grounded foundation.

Lange (2018) claims that "relationally oriented transformative sustainability education addresses the whole person—body, mind, emotion, spirit, and will" (2018, p. 292), and it is also always embedded in the shared flows of the collective and the nonhuman realm. This study has explored how the use of drama can support such transformations and moves towards an ecological civilization. The results confirm previous research on the affordances of drama and arts-based processes in sustainability teaching and give an example of how the integration of knowledge and wisdom that are striven for in the philosophy of ecological civilization can be put into pedagogical practice.

We choose to conclude with first author Julia's picture of the rhizome from a distance, and an accompanying composite poem that she wrote based on the six poems that were presented with the nodes, and references to research already discussed in relation to the nodes. The bigger font is copied text from earlier poems, and text in italics constitute quotes (Fig. 11).

New meetings, something unexpected. What will emerge? *Processes of becoming* (Braidotti 2016, p. 217). I am stuck but longing to be free. Threads pulling me, playing me, moving me. *Processes of transition, hybridization, and nomadization* (Braidotti 2016, p. 217). Will I dare?



Fig. 11 The Rhizome of Expanded Learning seen from a distance

In role and new light falls on the old, opening up my brain. *Lines of flight* (Deleuze and Guattari 1987). Me but not me. Surprise! I am moving. My body in the thinking. *A nomadic body is a threshold of transformations* (Braidotti 2011, p. 25). Moving, thinking, learning. Engaging. *The body is a surface of intensities and an affective field in interaction with others* (Braidotti 2011, p. 25).

I am here. Me, here. Connecting with me. Agency is [...] a relationship [...] that one is embedded in (Lange 2018, p. 290). Learning with me. Through me. Creative agency (Harris and Holman Jones 2022). Rejecting the unitary vision of the subject as a self-regulating rationalist entity. (Braidotti 2016, p. 211) We, here. Copresence [...] being in the world together (Braidotti 2016, p. 210). Moving together, in and out, makes clear the need for an ethics of responsibility (Barad 2007, p. 243). Learning in support. [R]elational bond that connects us. (Braidotti 2016, p. 210). Together.

Too fast. Too slow. Feeling uncomfortable, confusion. Staying with the trouble (Haraway 2016). Suddenly, passing the threshold. Feeling safe. Attuned to still possible finite flourishing (Haraway 2016, p. 10). EXPANDING

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