Metropolia

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Arts-based eco-social pedagogical approach in primary school setting

How to help future generations shape a better world?

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Abstract

This study aims to examine the application of an arts-based eco-social pedagogical approach in the Finnish primary school system in response to the current eco-social crisis, by exploring how it may increase students' eco-social skills and a sense of connectedness with their environment. The study is based on the educational objectives for environmental education outlined in the Finnish national curriculum and the more general environmental education principles and recommendations established internationally.

Key concepts related to the current eco-social crisis and environmental education are discussed as well as how arts and culture relate to it. The notion of interconnectedness awareness as a supporter of personal and eco-social wellbeing is presented as well as what skills and values must be encouraged in students regarding the current crisis. Finally, the arts-based eco-social pedagogical approach is described.

The data was generated and collected using arts-based eco-social pedagogical approach with a class of 6th-grade students in a primary school in Southern Finland. The group consisted of 23 students, their teacher, and the teacher's assistant. The process occurred throughout six sessions during the participants' regular school day.

A triangulated phenomenological approach was used for data collection and analysis within the framework of expressive arts therapy. The research identified five key outcomes of the approach that stood out through two complementary lenses: how the approach generates understanding of the subject and how the approach affects participants in relation to the research question. Those are as follows: (1) The process: creating a new culture (2) Wellbeing and safety: a core foundation (3) A sense of meaningfulness (4) An opportunity to engage (5) Fostering creativity and imagination. Finally, a summary of the findings is presented.

Future research may take the form of longitudinal studies to better understand and track participants' potential changes over time, as well as considering the need for a thorough analysis of previous qualitative studies in the field of expressive arts therapy to comprehend the approach's effecting components.

Keywords: arts, eco-social crisis, environmental education, expressive arts therapy, phenomenology, primary schools

Contents

Appendices……………………………………………………………………84

Note:

I believe that three particular terms need to be clarified in this study because of the potential for different interpretations depending on the context in which they are employed. Those terms which work as the red thread of the study can be understood and resumed as follows:

- *Sustainability*:
  The concept of "sustainability" is broad and includes a variety of societal, ecological, and cultural elements. In this study, it is narrowed to a simple and powerful question: what kind of future do we want?

- *More-than-human-world*:
  The concept "more-than-human-world", which is today widely popularized and adopted by many scholars, was coined by ecophenomenologist David Abram, in his sensational book *The spell of the sensuous* (1996). It is scarcely ever explained anymore when used in a text, because it has entered everyday discourse. Used in this study, the term refers to all life forms, also non-human ones, with emphasis on the idea that there is a world outside of that of humans with a value of its own, and on the interconnectedness among all living things.

- *Environment*:
  The term environment is a problematic term, which brings much confusion on what does it refer to. It might be understood as referring to what is around human beings, which is not part of them, or as referring to the natural world, nature, which is another problematic term. In this study, the term will be used as it is used from the studies it is being referenced to, as the natural world.

"The world needs us alive, awake and well, and so we do our own work, but we don't stop there. We sing and dance and tell stories of what is and what can be. We paint, pinch clay, play and create in collaboration with the stones and bones around us. We use our voice, our bodies, our hands and hearts to draw attention to both beauty and despair. We imagine our way forward, and then we get to work"

Melia Snyder (Atkins & Snyder, 2018, p. 26)

1 Introduction

Climate change and environmental degradation have been for many decades a serious preoccupation, recognised to put at stake the health, well-being and viability of the global population and the sustainability of every life on Earth (Ceballos, et al., 2017). As Earth system science becomes more well-understood (Le Treut, et al. 2007), the correlation between human activity and ecological crisis has been demonstrated (Boivin, et al., 2016; Cook et al., 2013; Crippa, et al. 2019; Kalachanis, 2014; Tilman & Lehman, 2001) and the latest reports on the subject are more alarming than ever (IPCC, 2022).

Geologists refer to this period as the Anthropocene era, in which a human-centered worldview predominates and humanity's influence over the Earth's carrying capacity and stability has expanded to the point that society can now destroy the very conditions that allow it to live. Earth has undergone tremendous changes throughout its history, but experts seem to agree that such major events have never happened so rapidly, so dramatically, and all stem from a single species. Indeed, there is a growing body of scientific evidence demonstrating the correlation between human behavior and the deterioration of Earth's systems (Elliot, 2011; Rockström et al. 2009). The Anthropocene epoch can be viewed as a significant disaster epoch in many levels. It is being described by some experts as an unprecedented sixth mass extinction episode (Boivin, et al., 2016), from which there is clearly no way back. Some climatic impacts have indeed already become irreversible, and several losses caused by human activity are approaching the point of no return (IPCC, 2022). Furthermore, studies reveal that the climate has already been lost forever as the tragedy wheel spins and the Earth's system breaks down, and CO_2 emissions will remain for thousands of years even if they would be instantly stopped (Solomon, et al., 2009). What is striking, is that despite the alarming knowledge of the correlation between human activity and the major global catastrophe, planetary calamities continue to escalate while humans' actions remain unchanged. Yet, it is exactly the actions society do now that will influence what will happen. The complexity of the situation makes it difficult to identify a one-size-fits-all solution, but it is important to

acknowledge that it will require at least institutional and behavioural changes (O'Brien, 2010). Naturally, the question of education and the potential role and impact it may have on society arises, leaving me reflective and daydreaming while imagining prospective outcomes on how the future generations could shape a better world.

In 2014, Finland officially entered in its national curriculum framework for comprehensive schools eco-social education (POPS, 2014, p. 16). In practice, it means that schools must teach students sustainable living standards by promoting new values and cultures to create a better future. The new national curriculum framework states that basic education understands citizens/human beings' responsibility as interconnected species and their dependency on the vitality of ecosystems, thus a need for an eco-socially oriented civilization (ibid.). In light of the eco-social crisis, it is crucial to help students understand the interdependence of all living things within an ecosystem and empower them with the knowledge and skills to reconsider how to interact with the environment (Keto & Foster, 2021). To do this, they must change their worldview from a dichotomized one to a more holistic and ecologically intelligent one (Lehtonen, et al., 2018a).

Already in 2012, I utilized my expertise in arts and art therapy fields to develop an arts-based pedagogical approach towards eco-social issues, which has been utilised in the comprehensive school system of the Päijät-Häme region in Finland in collaboration with teachers. This master's thesis aims to examine the application of an arts-based eco-social pedagogical approach within the Finnish school system in response to the ecological crisis and as a way to fulfil the educational goals related to environment that are set in the national curriculum framework. I will explore how a phenomenological arts-based approach can foster a sense of connectedness in pupils with the web of life and with what Abram (1996) calls the "*more-than-human*" world and urge them to act in a peaceful manner in the world by nurturing eco-social qualities in them. My thesis is based on an in-depth literature review of the latest findings and recommendations in the

fields of environmental science, environmental education, and cultural well-being, as well as the theoretical framework of expressive arts therapy.

The structure of the thesis is as follows: The context will be introduced first by examining the environmental crisis, including its characteristics and challenges, environmental education that was developed as a response to it, and how arts and culture relate to it. This will help readers comprehend the motivations for this research work. Secondly, the conceptual framework will be presented to the readers in order to help them understand the direction the research is going in, the methods that were selected, and the links between various factors, such as the creative approach to well-being and pro-environment behaviour. In the third, fourth and fifth sections, the research methodology selection, its implementation, and its findings will be discussed. The discussion will then address the challenges and constraints of the current study as well as potential directions and needs for future research.

1.1 Context
1.1.1 Environmental crisis

It is difficult to pinpoint the precise beginning of the environmental degradation and climate change. A political stance on where and how it all began would need to be taken (Bonneuil & Fressoz, 2013). Philosophers and thinkers of Greek antiquity, including Aristotle, were already striving to understand the connections between environment and society (Parizeau, 2016) and can be seen as founders of climate theories. Climate change is widely assumed to have started with the industrial revolution. Even though this period indicates a definite acceleration and amplification of the phenomenon, anthropogenic climate change is unlikely to be traced back to the Industrial Revolution. Some studies suggest that humanity started to significantly impact its environment and climate as early as the Neolithic Revolution (Nentwig, 2007; Ruddiman, 2005; Zammit, 2005). Through land development projects, man has modified climatic conditions locally and regionally for a long time (Ruddiman, 2005). Although there are several theories in the

literature, many of which conflict with one another, Ruddiman claims that the rise of agriculture was the tipping point for more greenhouse gases entering the atmosphere and temperatures levelling out. Sedentary living and farming activities radically changed cultures, social structures, behaviors, diets, epidemiology, as well as transformed local and global biodiversity and ecosystems (Boivin et al., 2016). It created a greater population and needed the clearing of more lands as early humans transitioned from hunter-gatherers to agrarian cultures. Deforestation resulted in higher levels of carbon dioxide accumulation, and the expansion of animal husbandry, along with the creation of artificial wetlands to cultivate rice, resulted in higher levels of methane production (Ruddiman, 2005).

Human impact on the environment and the current state of global warming have never been greater than it is today. The limitless exploitation of natural resources that began with the agricultural revolution followed by urbanisation, the Industrial Revolution, and later the capitalist society's growth paradigm along with globalization, have brought Humanity to the current unprecedented ecological crisis (Tiago, Rodrigues & Ramos, 2021; Tresset & Vigne, 2011).

The latest IPCC report (2022) paints a bleak picture of the future, predicting that life on Earth will become increasingly unmanageable over the coming years. As prior research and IPCC reports have warned society for decades, the situation has continued to deteriorate and has come to a dramatic point, with every corner of the globe already impacted. Yet, climate change should not be society's sole concern, as the world's dire position is far more widespread. Environmental crisis is often referred to as a climate crisis and narrowed to climate change, when in fact it is a broader social, ecological, and human-caused crisis (Salonen & Konkka, 2015). Indeed, humans have already surpassed fundamental Earth boundaries, putting the Earth system in a new condition that is no longer hospitable to life (Steffen et al., 2015). According to the alarming WWF's Living Planet Report (2020), human actions have been the primary driver of the massive biodiversity loss we are facing, on land and at sea, which is primarily driven by species habitat degradation and destruction. Additionally, anthropogenic activity

is responsible for the emergence of several environmental disasters such as among others the acidification of waters (Cai et al., 2021). Finally, humans have yet to solve poverty and the global food crisis (UN, 2011), and are instead waging conflicts.

Human activity is intrinsically linked to environmental and social problems and, as a result, to possible remedies. In other words, the globe is confronted with wicked problems that are profoundly tied to the question of what it means to be human and to live on this planet. It is thus reasonable to say that we are confronted with an existential crisis, a problem involving our relationships with the living planet (Kessler, 2019), which may be addressed by environmental education.

1.1.2 Environmental education

Environmental Education (EE) has been developed and practiced internationally for some decades especially during the post-war era, as efforts to create international agreements for environmental preservation proliferated in those years (Carter & Simmons, 2010). But 1972 was undoubtedly a watershed moment in the history of EE on a global scale with the first international event to give environmental concerns primary attention, the United Nations Conference on the Environment, which was held in Stockholm. As a result of the conference, the report presented the Stockholm Declaration, an action plan and The United Nations Environment Programme that was established as one of the key outcomes of the Stockholm conference (UN, 1972.). As part of the declaration, 26 principles were presented, of which principle 19 stipulates that:

> Education in environmental matters, for the younger generation as well as adults, giving due consideration to the underprivileged, is essential in order to broaden the basis for an enlightened opinion and responsible conduct by individuals, enterprises and communities in protecting and improving the environment in its full human dimension. It is also essential that mass

media of communications avoid contributing to the deterioration of the environment, but, on the contrary, disseminate information of an educational nature on the need to protect and improve the environment in order to enable man to develop in every respect (UN, 1972).

Based upon the report's given recommendations to address global environmental challenges, in 1976, the International Environmental Workshop in Belgrade, Yugoslavia, was held and as a result The Belgrade Charter was proposed by the United Nations Educational, Scientific, and Cultural Organization (UNESCO). According to the Charter, the goal of environmental action is "to improve all ecological relationships, including the relationship of humanity with nature and people with each other", and the goal of EE is "to develop a world population that is aware of, and concerned about, the environment and its associated problems, and which has the knowledge, skills, attitudes, motivations, and commitment to work individually and collectively toward solutions of current problems and the prevention of new ones" (UNESCO-UNEP, 1976). But it is especially in 1977 that the formal articulation of EE as an international endeavor was provided (Tbilisi, 1977). Known as The Tbilisi Declaration, it laid the foundation for today's initiatives in environmental education, by emphasizing the importance of an interdisciplinary approach and a holistic and balanced perspective and proposing a shift in the entire teaching sector (ibid.). The primary goals of its proposed EE include fostering awareness of, sensitivity, and understanding of the environment and its challenges, encouraging environmental attitudes and values, boosting environmental skills, and providing chances to actively participate in the resolving of environmental issues (Tbilisi, 1977, pp. 25–26).

Many decades later, despite the efforts provided to develop and practice EE, there are still significant gaps between education and sustainability (Blumstein & Saylan, 2007; Lehtonen et al., 2018a; Wolff, 2011) as the global ecological situation is still deteriorating (IPCC, 2022). Wolff (2011) even provocatively wrote that:

no adequate methods available for teaching about environmental issues have promoted pledges of sustainability, and no one has come up with any brilliant clue of how education or other institutions or influences could contribute to a larger and more profound environmental commitment that could significantly change the treatment of our natural world (Wolff, 2011, p.11).

According to Chapter 36 article 36.3 of The Agenda 2021 (UN, 1992), education is crucial for establishing environmental and ethical knowledge, values and attitudes, skills, and behavior commensurate with sustainable development, and effective public participation in decision-making, which brings teachers a major challenge and overwhelming responsibility. Also, the article stipulates that in order to be effective, EE should consider the dynamics of physical, biological, socioeconomic, human, and spiritual development, and it should be applied across all disciplines, incorporating formal and non-formal approaches and effective communication strategies (UN, 1992). This new kind of holistic education will necessitate new pathways and approaches in teaching methods, such as the use of creative methods (Emery, 2016). Of course, such a huge burden of responsibility on education alone cannot be placed to be the main driving force behind sustainability. Also, teachers are influenced by their own worldviews, knowledge, values, and assumptions when they educate children on issues related to nature, (Wolff, 2011, pp. 59–60), and should be especially trained to be competent in this matter (Tiago, Rodrigues & Ramos, 2021).

The IPCC special report (Roy, et al., 2018) already emphasized the need for a societal transformation and a shift of values that could support sustainability. Aspects of social justice, equity, well-being are seen as core elements of the strategy towards sustainable living and climate-resilient future. Without this societal transformation, the report is clear, achieving sustainable development and limiting warming-up to 1,5 degrees might even be impossible. This special report proposes problem-solving pathways that are embedded in the 2030 Agenda for Sustainable Development (UN, 2015), which proposes 17

Sustainable Development Goals. One of the proposed goals is Quality Education, from which target 4.7 (p. 17/35) stipulates that:

> By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship, and appreciation of cultural diversity and of culture's contribution to sustainable development.

Clearly, guidelines to EE are not limited to mere environmental knowledge but expand into a holistic and integral knowledge which recognizes the need for a broader and deeper understanding of sustainability, from the perspective of human to more-than-human relationships, but also within social relationships.

1.1.3 Culture, arts, and environmental education

EE is often approached through cognitive and theoretical lenses that have not yet reach major positive results and might not be sufficient to address global challenges (O'Brien, 2009). Between academic understandings of sustainable practices, which focus on ecological factors, and actual sustainable practices, which are linked to eco-social aspects that combine both the ecology with the human (Milstein & Castro-Sotomayor, 2020), there seems to be a noticeable gap. Indeed, it is possible that educational concepts and approaches are not promoting adequately environmental knowledge in ways that would support long-term sustainability, acknowledge human and non-human interdependence, and emphasize our responsibilities in establishing a sustainable human and non-human relationship (Salonen & Åhlberg, 2012). This understanding is nevertheless critical in determining environmental behaviour and would lay a crucial foundation for cultural practices as pathways and solutions for the wicked global challenges (Asikainen et al., 2017).

The question of the arts in relation to sustainability is becoming more prevalent in the public and academic discourse, even though it is still a controversial and complex matter (Shrivastava, Ivanaj & Ivanaj, 2012). According to Shrivastava et al. (2012), emerging science and the arts are necessary for a holistic and passionate implementation of sustainable development. Indeed, something significant and transformative such as the arts will be needed to fulfil the experts' guidelines on overcoming this existential challenge, which requires a shift in value systems and paradigms (Galafassi, et al. 2018; Salonen & Ahlberg, 2012) to foster the development of new ways of being and thinking. According to Värri (2018), an education which could support the blooming of entirely new environmental ideals by working on an ontological level and understanding which fundamental beliefs, concepts and narratives trigger humans' actions would be needed. This obviously would necessitate a massive and overwhelming shift in people's lives and worldviews that for example Finnish national education may not be able to provide. This required transformative learning, as defined by O'Sullivan et al. (2002) as a shift in awareness that significantly and permanently alters human being's way of being in the world, could only be attained through a creative practice (Simpson, 2006).

The arts have the power to affect change and instigate profound transformation in individuals and cultures, emphasizing their importance as a cornerstone of a long-term worldview (Moore & Tickell, 2014). Indeed, in 2020, the Jena Declaration[1] was created as a last chance to attain the broadly agreed Sustainable Development Goals and signed by significant international figures. Creativity, aesthetics, and the arts in all their forms are viewed as vital for changing people's perspective on ways of life, as stated in article 9 of the declaration.

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[1] The Jena declaration was created as a result of a conference called "Humanities and Social Sciences for Sustainability" that was organized by the Canadian and German Commissions for UNESCO, the International Council for Philosophy and the Human Sciences, the Social Sciences and Humanities Research Council of Canada, the World Academy of Art & Science, The Club of Rome, the Academia Europaea, and the International Geographical Union.

The arts, that have been employed by individuals and communities throughout history, have only recently been thoroughly investigated in order to determine their health and well-being benefits. The World Health Organization produced a study report in 2019 that is the most important and largest to date (Fancourt & Finn, 2019). Because arts in relation to environmental issues is still a relatively recent phenomenon, further studies on the direct effects of arts on sustainable behaviors are needed (Curtis et al., 2014). However, a different approach to arts and culture studies can be taken, such as acknowledging their transformative potential and their importance in generating new values and necessary skills that support the EE and sustainable goals and understanding their mechanisms. In a study evaluating the role of arts in achieving ecological sustainability, Curtis et al. (2014) share important elements that promote pro-environmental behavior, including moral improvement, aesthetic appreciation of nature, emotions, awareness of consequences, educative function, improving knowledge, helping construct self-identity, and breaking habits. Furthermore, being involved in a creative process is a transformational act that results in insight, understanding, and awareness, which leads to change (Malchiodi, 1998) by bringing something new and unique to life and allowing one to imagine what could be. Knill defines it as "an ability that allows people to discover a new solution to an old problem or an appropriate response to a new situation. Therefore, with a creative attitude the ordinary way of looking at things is abandoned" (Knill, 2005, p. 84). A creative person, according to Rogers, is someone who has a "sensitive openness to his world" and "trust in his own ability to form new relationships with his environment," (Rogers, 1961, p. 193).

1.2 Research question

The purpose of the study is to examine the application of an arts-based eco-social approach in the Finnish primary school system in response to the ecological crisis. The study lays upon the educational aims for environmental education put forth in the Finnish national curriculum, as well as the larger environmental education principles established internationally. The study acknowledges EE's

limitations, considers critics of its previous failures, and strives to follow recent suggestions with the proposed approach, while opening to new possibilities.

The study explores how a phenomenological arts-based approach can increase a sense of connectedness with their environment in pupils, nurture eco-social qualities in them and encourage them to have a peaceful impact in the world. The implementation of the approach could inspire a redefining of the educational area in reference to the current state of the world, allowing for the unfolding of a transformation. The project also focuses on cultivating the students' well-being and mental health, which is considered as critical to their ability to form sustainable communities.

My research question is as follows:

How can the application of an arts-based eco-social approach in the Finnish primary school system help address the environmental crisis?

2 Conceptual framework

In this chapter, key concepts related to the current eco-social crises and education will be discussed. First, the notion of interconnectedness awareness as a supporter of personal and eco-social wellbeing, is presented. The discussion then proceeds to what skills and values must be encouraged in students regarding the current crisis. Finally, arts-based eco-social pedagogical approach, intended to address both above questions, and which exploration is the aim of this research, will be described.

2.1 Interconnectedness awareness and mutual well-being

The interconnections between people and the environment are being brought to light as more research is being done on the potential link between human global health and environment. Correlations are starting to emerge showing how a polluted environment is harmful for humans (European Environment Agency, 2022; Filipova et al., 2020), while on the contrary a healthy environment is health-enhancing (Mental Health Foundation, 2021; White, et al., 2019), telling that people's well-being is undeniably interwoven with the well-being of the Earth. In fact, this understanding has gained such importance that governmental policies have emerged according to it. For example, the English governmental 25 Year Environment Plan where Chapter 3 is dedicated to "Connecting people with the environment to improve health and wellbeing" (DEFRA, 2018, p. 71). Also, Chinese new policies are encouraging outdoor activities to tackle the nation's myopia issue, which is mostly brought on by too much time spent indoors and a lack of sunlight (Jan et al., 2020; Morgan, Jan & Boptom, 2022), and France and Bruxelles are massively investing to revegetate their school yards (Bruxelles Environnement, 2021; Fauchier-Delavigne & Krémer, 2020).

Furthermore, interesting studies are bringing to light the deeper significance of connections through biological and evolutionary sciences, which highlight the importance of reciprocal cooperation between living things, which is prevalent in

nature as opposed to competitive beliefs. This concept is also known as *mutualism* and refers to this vital relationship that is advantageous to both parties, in the biological world but also in the world of human-to-human relationships (Bronstein, 2015; Servigne & Chapelle, 2022). Following Lovelock's Gaia Hypothesis, the world has evolved extensively as a result of cooperation, interconnections, and symbiotic relationships which all served to maintain the Earth system's capacity for self-regulation (Lovelock, 1972; Margulis, 1970); a system of connections between living things, similar to a spider web where changes made by one party affect all the other parties (Keto & Foster, 2021, p. 37). Like all other living things in this spider web, humans are also wired to respond to and communicate with other living things. In fact, in 1983, Wilson coined the term *biophilia*, or the Biophilic Hypothesis, which refers to an innate attraction to the natural world (Wilson & Keller, 1993). This hypothesis brings understanding on the way humans relate to life and on how humans are willing to protect it. In Keller's words:

> The biophilia hypothesis proclaims a human dependence on nature that extends far beyond the simple issues of material and physical sustenance to encompass as well the human craving for aesthetic, intellectual, cognitive, and even spiritual meaning and satisfaction (Wilson & Keller, 1993, p. 20).

A similar hypothesis is also found in *ecopsychology*, term coined by Roszak (1992), which focuses more specifically on the bond between people and nature and seeks to heal the many woes of individuals and society from their alienation from nature, by restoring people's innate sense of environmental reciprocity (Roszak, 1992). Exposure to nature especially at a young age is seen as crucial element to develop later on an ecological identity and motivate later actions towards nature (Charles, 2018). However, exposure to nature alone might not be enough. To really experience possible benefits, a person must feel connected to nature and develop strong emotional attachments with it (Richardson et al., 2021). This bond, or the lack of it, is what is of interest here in the pursuit of

interconnectedness awareness, mutual well-being and consequently environmentally responsible behavior.

There is a popular notion that there once existed a time when humans and non-humans coexisted peacefully; a time when Earth was revered as a mother and protected from exploitation. This alludes to the tight and direct relationships people had with the organic world, cultural tendencies to personify the Earth and nature, and cultural belief-system of Indigenous population where "animism of nature created a relationship of immediacy with the human being (Merchant, 1983, p. 28.).

In reality, it is challenging to get a complete picture of the relationship that has existed throughout history between humans and non-humans without speculating. Also, the concept of peaceful relationship would need to be defined and it would need to be studied through different populations, cultures, and timelines, which goes beyond the scope of this research. However, it is fair to assume that the relationship is deteriorating in light of the current human-caused ecological disaster, and that it would be important that "the real causes need to be searched at a much deeper level, namely at the conceptual level of ideas that have moulded human attitudes towards the physical world and guided human treatment of nature" (Kureethadam, 2017, p. 4). Kureethadam (2017) argues that the philosophical and conceptual roots of the crisis are most likely traced to Modernity, when a change in human worldviews emerged. Some attribute this transformation to Christian theology and its interpretation of the biblical command regarding human dominance over nature (White Jr., 1967). In Merchant's historical work (1983), it is argued that influential figures and founders of modern science such as Thomas d'Aquinas, Francis Bacon, William Harvey, Rene Descartes, Thomas Hobbes, and Isaac Newton might have had a strong influence on the worldview generated, from which René Descartes and Francis Bacon are often referred as the main culpable (Lewis, 1993). Although it is difficult to situate the separation from human to the more-than-human world in time, Descartes and his conception of the natural world reduced to mere matter and his concept of dualism which has marked a definite separation from human to

nature, stands out (Kureethadam, 2017), and most likely led to a deformation of reality and a misinterpretation of human's purposes.

Looking at the issue through a contemporary perspective, in 2017, according to a study conducted by Kesebir and Kesebir, a cultural shift away from nature since the 1950s has been observed. This trend is reflected in a decline in nature-themed books, songs, and movies as well as an increase in screen time and indoor activity. Indeed, in the last decades people from Occidental countries have never spent as much time indoors compared to past generations (Louv, 2005; WHO, 1997; WHO, 2013). Referred sometimes as the "indoor generation", this lack of nature exposure can have a detrimental effect on interconnectedness awareness and mutual well-being (Capaldi, Dopko & Zelenski, 2014). It is reasonable to wonder if the value of nature has completely vanished from human's culture given that they are currently more likely to recognize different phone alert notifications than bird songs, and children are more likely to remember the names of various Pokémon than those of insects. In this study, rather than going into further detail about the historical components of the problem, it is interesting to look at the issue through the lenses of the relationships that exist today, how people view themselves as a part of the natural world, and how a sense of connectedness with the natural world can be revived.

To do that, it is important to be aware of the contemporary dichotomized worldview that is both present and prevailing, and which has pushed humans from being an intrinsic component of nature to a position of dominance over the natural world (Lehtonen, et al., 2018b), and the idea must broaden to include the dualism that guides every aspect of life. Furthermore, understanding the significance of emotions, psychological attachment, cultural context, and physical involvement is regarded as a critical component in developing a bond with living things (Capaldi, Dopko & Zelenski, 2014). Narratives play a significant role as well in determining people's relationship with nature. What stories about the natural world have people been exposed to? What stories will they tell the following generations? As the French environmental activist and chair of the NGO Sea Shepherd France, Lamya Essemlali (2020) has so forcefully stated during

an interview: "If the dolphins are not preserved, then nothing else in the sea will be spared, so Sea Shepherd must save them. For instance, even though sea cucumbers are as vital as dolphins, no one is concerned about them".

Indeed, dolphins have had a very charismatic position in human popular culture, which contributes to an existing bond with them, which urges to protect them. The contrary is true for those less attractive and believed terrifying species, such as wolves, who do not possess a good reputation in humans' popular culture, as well as for those who have no place at all in it, like the abovementioned sea cucumbers. Culture largely defines how do people value nature, and, as a result, shapes their opinions about what deserves to be saved and preserved (Coolsaet & Néron, 2020). The Occidental culture is especially emphasizing a Cartesian dualistic mindset where relationships are created based on this understanding of separateness, hierarchy, and power (Foster, Mäkelä & Martusewicz, 2018). Furthermore, cultural differences among populations which guide decision-making are to be taken into consideration (Yates & de Oliveira, 2016) when trying to find a shared eco-social living paradigm. This statement helps understand that mutual well-being is limited if humans are not in the first place aware of certain aspects or elements of the living world, recognizing their intrinsic value and the interconnections that exist. Dichotomized thinking in which nature has been instrumentalized, has for long guided our ways of living. Education also contributed to the widening of the gaps. Western education has largely been paradoxical in that it is acknowledged as a major factor in environmental issues while simultaneously educating against them (Sterling, 2001). By teaching harmful values and restraining the capability to think critically (Phillips & Phillips, 2021) and by maintaining a competitive and isolating system where students are urged to view themselves as fragmented, remote, excessively rational, and label-giving beings rather than as sensitive, solidary, holistic ones who are dependent on eco-social systems, the Western education system, which was too long focused on economic efficiency, has failed to address eco-social issues (Lehtonen, et al., 2018b; Phillips & Phillips, 2021).

However, in recent years, as the effects of climate change have become more perceptible and have begun to affect individuals directly, the state of the world has started to seriously impact people's mental health, referred sometimes to climate anxiety, eco-anxiety (Pihkala, 2019; 2020), or solastalgia, a feeling of "homesickness", which is the distress brought on by losing one's existing home while still living there (Albrecht et al., 2007; Albrecht, 2005). This may provide the impression that a rising sense of interconnection and mutual well-being is beginning to emerge, whether viewed through an egoistic or altruistic perspective.

2.2 Educating for eco-social integrity

Regardless of cultural background, integrating ecological and social concerns into daily life and in the educational context would help to move towards eco-social integrity by recognizing how everything is interconnected and how those connections influence both sides. Eco-social integrity is about recognizing that life outside of own one has a value of its own, independent of own needs and that people have a responsibility on it. It involves realizing the continuous dialogue that exists not only within oneself but also between all living things and realizing that the quality of the communication and encounter shapes the quality of the relationship. Furthermore, it involves developing a caring mindset, within a framework of diversity, drawn to willingness to preserve the stability of Earth systems, including the human social system, and to advance mutual well-being. In one word, it is about *relationships*: how do I encounter otherness?

If education participated before in a dichotomized paradigm, it can nevertheless, in turn, address this problem by changing from a linear to a more holistic system that incorporates morals and values as part of a broader long-lasting model. The goal of Finnish new curriculum framework guidelines which includes eco-social education and recognizes that people are a part of nature and dependent on the vitality of ecosystems, is to achieve this through fostering a culture and way of life that emphasizes understanding the seriousness of climate change and making a

commitment to acting sustainably (POPS, 2014, p. 16). Overall, the principal tenet of the basic education curriculum framework is that children develop in a world of diversity and become integrated in it through relational experiences. These interactions give children the opportunity to experience otherness and comprehend the inherent value of diversity, which can encourage peaceful coexistence (Keto, Pulkki & Rautio, 2021). The way humans interact with otherness will determine if the relationship is one of power, of mutual recognition, or of respect which consequently necessitate certain "skills" if the latter will be the one reinforced. Empathy works as a crucial foundation for any encounters because it is intrinsically highly attentive to what is and intimately connecting to otherness without any judgments. It serves as a catalyst that will propel towards compassion and the deliberate choice to do good. According to Smith et al. (2013, p. 82), "much of our behaviour toward other people is based on our understanding of what they are thinking", but also what they are feeling, what they are. Empathy helps to understand the other from the inside which highlights the impact of people's actions on others. But empathy is a little more complex multifaceted construct which depending on the researcher's tradition will vary in its concepts. Eight characteristics of empathy emerged from Batson's in-depth research of the topic (2009).

According to Hanson (2011), empathy relies on three specific neural systems: 1: the motor and perception system which was identified with the discovery of mirror neurons which gives a virtual reality of what others are experiencing 2: the insula and its associated circuits, involved in consciousness, emotion and self-awareness, which is related to feeling what others are feeling and their emotional states 3: the cognitive processes of empathy, or theory of mind, which helps understanding that others have a state of mind of their own, beliefs, thoughts. To summarize, empathy needs the physical, emotional, and cognitive neural circuits in order to be effective. To put it another way, when one encounters otherness empathetically, there is a chance to relate to it in the most personal and comprehensive way possible, through one's own bodily experiences, in such a way that only acts of compassion might come from this encounter. Empathy should not and is not just merely restricted to interhuman interactions. Even

though it wouldn't be possible to fully comprehend a tree or a microbe, for example, this empathetic response can and must be extended to the more-than-human world. The basic recognition of otherness' intrinsic right to live and prosper through the understanding of one's own fundamental rights, followed by the understanding of beneficial mutual relationship, should therefore inspire the desire to act compassionately and in favor of the environment.

In the same way that the challenges and mysteries of the world transcend disciplinary boundaries, education for social integrity is a multidisciplinary endeavour that should consider different perspectives and include multiple ways of knowing. UNESCO proposed in 2021 in its report from the international commission on the future of education, the transformation of the education system by adapting our pedagogies based on what is known to reimagine our future:

> a new social contract for education that can repair injustices while transforming the future. This new social contract must be grounded in human rights and based on principles of non-discrimination, social justice, respect for life, human dignity and cultural diversity. It must encompass an ethic of care, reciprocity, and solidarity. It must strengthen education as a public endeavour and a common good (found in the summary).

In this thought-provoking and inspiring report, guidelines are that teachers and students must closely collaborate to form a community which seeks knowledge and co-creates it emphasizing on the transformational aspects of dialogue. New approaches and pedagogies are needed "to learn in and with the world" (UNESCO, 2021, p. 51), in a participative and empowering manner, enabling the blossom of a new view of reality referred by Sterling as "an ecological participative worldview" (2001, p. 32). This much needed new epistemology according to him, recognizes that reality is both "reel and created", shaped by people's perception of it, which are in turn shaped by it in an interconnected relationship (ibid). As a result of their increased knowledge and understanding of how interlinked everything is, people, as individuals and as collectives, might therefore create

more sustainable and responsible relationships. However, education must understand that knowledge has to be an integrative process of which its different facets should be considered as valuable. *Eidos*, intellectual knowledge, has been in Western culture mostly dominant over other ways of knowing; yet comprehensive knowledge should encompass perceptual, conceptual, and practical paradigms (Sterling, 2001). Aristotle proposed three ways of knowing: *theoria*, by observing (also known as scientific understanding), *praxis*, by acting and doing and *poiesis*, by making (Knill, Levine & Levine, 2005, p. 32).

Sterling proposes an interesting model of knowing and learning that is more comprehensive, integrative, and in-depth, where our actions, ideas and norms are based on metaphysical conceptions, worldviews, and values (Sterling, 2010). Following Sterling, I argue that knowledge develops as a result of a continuous dialogical process wherein observation, experience, emotions, bodily sensations, action and whole systems thinking understanding combine to provide insight of a particular phenomenon. Furthermore, memory plays a significant role in learning and how information is stored and processed. This raises the issue of "environmental generational amnesia", term coined by human-nature interaction specialist Peter H. Kahn (Kahn, 2002; Kahn & Weiss, 2017), which occurs when memory is not consolidated due to a lack of exposure to nature, or worse, when there is no exposure at all and what is unknown cannot be considered. For instance, it is difficult for the current generation to relate to the great biodiversity that existed in the past because they can hardly remember it, threatening the really recognition of the problem which remains invisible. Indeed, according to Kahn, children are constructing their knowledge, understanding and ideas of the world and nature from where they are situated. The normal world and environment are the one in which they are born, and they are unaware of the things they have already lost (Kahn, 2002; Kahn, 2021; Kahn & Weiss, 2017). Unfortunately, the world in which children are living, especially in western countries, is a world which is already highly diminished in wilderness, highly urbanized and digitized. Kahn suggests that the knowledge of nature people have usually comes later in life, in adulthood, when a comparison to what was, can be done, but remains incomplete; hence the need of an EE in childhood that

prioritizes exploration and interactions to transform knowledge to something more sustainable and help people define their view of nature (Kahn, 2002, p. 113).

Students may be encouraged in environmental education to learn about, for instance, the natural world in a holistic way, giving them not only a thorough understanding of the subject but also the wisdom to understand how to relate to it. In this way, knowledge is connected to values, and values to decision-making, skills, and action. Values may become altruistic, as opposed to self-interested ones which are embedded in social and institutional contexts (Jackson, 2005). Therefore, it stands to reason that EE cannot be effective if it simply occurs through theoretical explanations. Furthermore, how one will create relationships and build-up knowledge in the classroom, and how one will take part in the educational structure's culture will transfer it outside the classroom, to the ecological and social world. In that sense, as Orr stated already in 1992, "all education is environmental education" (p. 90); all education is eco-social education.

Given the current global crisis, educating for eco-social integrity demands efforts on how to envision and create a better future by creating a better present. This effort appears to be overwhelming in terms of its urgency, radicalness, scope, and requires a break from established educational practices and norms. It also requires a withdrawal from a culture which has raised people from the start into a biased model. O'Sullivan et al. summarized this needed shift:

> Transformative learning involves experiencing a deep, structural shift in the basic premises of thought, feelings, and actions. It is a shift of consciousness that dramatically and permanently alters our way of being in the world. Such a shift involves our understanding of ourselves and our self-locations; our relationships with other humans and with the natural world; our understanding of relations of power in interlocking structures of class, race, and gender; our body-awareness, our vision of alternative approaches to living; and our sense of possibilities for social justice and peace and personal joy (2002, p. 22).

Transformation is a concept that is already to be found and is prevalent in therapeutic settings, and especially in the expressive arts therapy realm, which itself has elements in common with the UNESCO report mentioned earlier which contends that concepts of meaningfulness, inclusion, diversity, solidarity but also of play, curiosity, exploration, and imagination are all essential components of this new proposed social contract for education (2021). The field of expressive arts therapy answers to large extent the previous suggestions, by expanding its comprehensive practices and philosophies away from the therapeutical practice into the social, health and ecological fields holding great potential to the educational field and eco-social education. In the next chapter I will describe its content and how it has been incorporated into the educational system using the arts-based eco-social pedagogical approach, which is the approach being investigated in this study.

2.3 Arts-based eco-social pedagogical approach

Concerned about the state of the world and determined to contribute to reimagining education through the cultivation of interconnected flourishing between humans and non-humans, I began developing an arts-based eco-social pedagogical approach in 2012, which has been used in several schools of the Päijät-Häme region in Finland in collaboration with teachers.

Based on established theoretical, philosophical, and psychological framework, the field of expressive arts therapy was developed in the 70's and has found its way into counseling, education, supervision, research and for social justice and peace making internationally (Atkins & Snyder, 2017; Levine & Levine, 2011; McNiff, 2009). Furthermore, interweaved with ecotherapy, the field is evolving into more specialized nature-based disciplines (Atkins & Snyder, 2017), from which arts-based eco-social approach can situate itself; expressive arts-therapy being more grounded in the arts, while ecotherapy is focusing more on the human relationship with Earth (ibid.).

Indeed, the expressive arts therapy framework seemed to provide the suitable methodology to support individual and social transformation through a creative and holistic process, with a high degree of adaptability, sensitivity, cathartic quality, and the capacity to deal with challenging experiences, also traumatic ones (Adibah & Zakaria, 2015; Levine & Levine, 2011; Malchiodi, 2020). In fact, an alternative term was even proposed to fit more precisely what the field of expressive arts therapy is about, "transformative arts", referring to its personal and societal change possibilities (Atkins & Snyder, 2017, p. 32). Malchiodi (1998) argued that the therapeutic process as well as the creative process are acts of modification and transformation that result in insight, understanding, and awareness, which in turn facilitate change. The expressive arts therapy framework, which I will describe below, was thus adapted to the educational setting and according to the aims it was intended to achieve, becoming in line with the target groups' needs and the eco-social concerns. It was therefore not anymore, a question of therapy, but of educational practice, that simultaneously supported the participants' wellbeing and holistic growth, individually, and as part of an ecosystem.

Indeed, going beyond the individualistic cult of personal fulfillment and development, and drawing from environmental sociology (Dunlap & Catton, 1979) and systems theory (Bertalanffy, 1950), an emphasis on ecological and societal issues is put, situating the individual's well-being back into the broader relational and interconnectional context, and emphasizing on the role of encounter and reciprocal encounter. John Muir stated in 1997 that "when we try to pick out anything by itself, we find it hitched to everything else in the universe" (p. 245). The interest here is on how things are interconnected, how one influences another, how one's own position relates to that of others, how things are being seen and how they are manifesting themselves and identifying the ongoing dialogue that takes place through a creative and holistic inquiry where arts serve as a bridge. Moreover, the expressive arts therapy framework emphasizes that "each individual exists in a continually changing world of experience" (Rogers, 1951, p. 349), referred as *phenomenal field*, focusing on

how each person responds to this subjective dialectical encounter in their own unique way based on how it is experienced and perceived at the time. Thus, the participants' perspectives inform the inquiry.

In a classroom, and in relation to the eco-social issues, the phenomena explored can be, for example, nature, a rock, emotions, classmates, imagination, or a more specific theme. Subsequently, the dialogue created between self and life phenomena with the arts enables the participant to perform an in-depth exploration. Furthermore, the arts possess an inherent nature of bringing forth information that is called *Poiesis*, an endeavour in which an individual produces something into being that never existed before, a way to know by making (Knill, Levine & Levine, 2005). Levine calls it "the creative capacity of the body as a vehicle where words and art come together" (p. 11), "an extension and development of the basic capacity of human beings to shape their worlds" (p. 23) (Levine & Levine, 2011). Poiesis is a central concept of the field of expressive arts therapy. More than being about shaping something, Poiesis is the active and embodied act of responding to the world as it is perceived. Following Merleau-Ponty's view on the lived-body (*le corps vécu*) (1962), the world is experienced through our bodily sensation, and it is through this bodily existence that we respond to the world and "listen to that other which addresses me" (Knill, Levine & Levine, 2005, p. 72). The arts are a sensuous discipline, deeply inscribed in our bodily experiences, that offers a meeting point between the world and oneself and offering understanding of one's experience and that of the outside world, strengthening the idea of interconnections. Participating in the process may offer a new kind of knowledge to unfold from the experience and the innermost of the participants, which in turn, will interact with the phenomena through aesthetic response (Knill, Levine & Levine, 2005). As a result, a new understanding may arise as well as new ways of being and agency which should promote planetary health (Panorama Perspectives, 2017). The process also allows pausing and exploring the being in this world (Heidegger, 2010), the way of existing in this world and to imagine how being here could be.

The way in which expressive arts therapy views therapeutic and social work as a whole and how it uses the arts as an integrated process, referred to as *intermodality*, or interdisciplinary approach, differentiates it from other forms of creative therapies (Knill, Barba, & Fuchs, 2004; Levine & Levine, 2011). Indeed, the concept of intermodality is drawing from the idea that "arts practices engage different sensory capacities" and it "helps us understand and conceptualize the body as a multi-faceted perceptual, expressive and relational center" (Levine & Levine, 2011, p. 12). By using different art modalities, such as dance, music, painting, clay, drama and so on together and in dialogue with each other, the participant may realize how those different "artistic disciplines are rooted in the different modalities of sensory experience" (ibid., p. 22), emphasizing on the depth and holistic component of the process and offering paths for exploration. Furthermore, one art modality is in itself inherently holistic, such as a crayon moving on the paper and the sound emerging when traveling across it, or the smell of the paint and its vibrant colours. Dancing, too, is an integrative process that "contains all the sensations, feelings, emotional states, thoughts and memories we have experienced in our lives" (Halprin, 1999, p. 136). In the process, exploring a certain theme by starting with movement, and continuing the work with paint and then with poetry, helps the participant to dive into the sensuous world of experience and might offer different perspective on the studied theme. Therefore, the participant takes part in the process as a whole, where memory, imagination, bodily sensations, emotional experiences, narratives, and cognitive experiences are all stimulated and taken into action. However, the goal is not in absolutely using different means, but rather, to find the path for exploration that serves the participant the best at a given moment in time.

Expressive arts therapy's theoretical and philosophical framework relies on an existential view of the human being and phenomenology. It is a non-dualistic approach of existence where human experience is seen as one of existing as aware of and in relation with, and the way life "shows itself to us in our very act of existing" (Knill, Levine, Levine, 2005, p. 24). It is referred as *Dasein* ("Da-sein, being-there", Levine & Levine, 1999, p. 30). Phenomenology, according to Levine (Knill, Levine & Levine, 2005), was born as a solution against the Cartesian

dualism problems, as a way to explore the nature of experience, and as a way to attend to the phenomena of the world as it appears to own consciousness. The phenomenological lens taken when looking at the world may help participants to embrace "that which shows itself to us" (Knill, Levine & Levine, 2005, p. 24), as they present themselves to us without any judgment and gives information on the quality of the interaction. Moreover, the participant is not experiencing the phenomenal field alone, but is sharing the experience with other participants, holding great potential for finding shared meaning and understanding.

In practice, participants are provided with a secure and specific framework to come together to explore the phenomena of life with the use of arts (Levine & Levine, 1999). Participants enter through ritualistic means into what is referred to as a *liminal* space, a space of limitless possibilities in which "one is free to invent new forms of meaning for oneself and for the group to which one belongs" (Knill, Levine & Levine, 2005, p. 43). Also called an alternative world of experience, this spatially and temporally framed space is an opportunity to step back from daily life and explore oneself, one's actions, and one's beliefs in a way that allows for reflection and transformation. However, the participants are not cut off from the outside world; rather, using verbal and non-verbal cues, their daily realities are concretely addressed throughout the process (Knill, Levine & Levine, 2005, p. 80). Threshold rituals are used to create this intangible space and differentiate it from the participants' everyday life. Ward defines it as "rituals that are offered at the threshold of a space which invite the acknowledgement of the present moment and the significance of our arrival to and departure from a space" (Ward, 2021, p. 3). The facilitator is responsible for creating this space which should be a *holding environment* for the participants to engage in this sort of working, where they can feel safe enough to be who they are without fear of rejection or judgment. Participants develop trust and a sense of security in this distinctly Rogerian environment (empathy, congruence, and unconditional positive regard) (Rogers, 2007), which enables them to fully engage in the experience. "If the frame is secure, it can hold anything. We can go anywhere, do anything" (Levine, 1999, p. 265). According to Rogers (1980), a high degree of empathy in the relationship between participant and facilitator is crucial and "possibly the most potent factor

in bringing about change and learning" (p. 139), "is associated with various aspects of process and progress" (p. 147), is "related to a high degree of self-exploration in the client" (p. 147) and "dissolves alienation" (p. 151). The working happens thus through an empathetic lens, where the concept of *low-skill high sensitivity* must be mastered by the facilitator, allowing the letting go of "habitual ways of seeing and becoming sensitive to other materials and parameters of shaping" (Knill, Levine & Levine, 2005, p. 98), and providing a wide *range of play* for the participants to unleash their imagination and creativity.

In this empathetic process, the participants can investigate important life topics while being holistically involved (Malchiodi, 2003). In a group setting, the sense of belonging and the bond between pupils and the teacher may be reinforced, and the participants may become visible in the whole of their being and accepted as such, equal to everyone. The mutual recognition and appreciation of the diversity and preciousness of life thus gained may encourage the pupils to act accordingly. In fact, participants are given the unique opportunity to share a genuine and deeply personal moment with their peers, which may not be feasible outside of this process. Participants are also encouraged to carry these priceless newly developed relationships and perspectives into their daily lives.

The process has a specific structure or architecture, as seen in the graphic from Knill, Levine, and Levine's book (2005). By process, is meant
 not only a one-time session (here 1,5h), but as well the whole process (here six weeks), undergoes the same structure, with flexibility depending on the participants. In this section, I have outlined the several essential steps and components and produced an adapted figure (figure 1, figure 2) for an arts-based eco-social pedagogical method:

- Entering the liminal space (the classroom has been organized accordingly. Tables are put aside to leave space for a circle of sitting pillows. Ambient music and subdued light).

- Starting ritual (A candle might be lit, or a bell might be used. The idea is to create a ritual so that the participants know that now it starts, the alternative world of experience may start).
- A sharing moment (how do I feel now, from where do I start).
- Warm-up exercise that leads to the working time (play, creative work)
- Working time (creative working).
- Harvesting time, aesthetic response, reflection (what happened during the working, what came up).
- Sharing time (how do I feel now, what do I take from the process).
- Ending ritual (the candle may be blown; we all go back to our everyday life).
- Cleaning up the space.

Students' life	Everyday life	D E C E N T E R I N G
Start of the session	Connecting to everyday reality	
BRIDGE	Warm-up	
Art process/play	Alternative world experience	
Aesthetic analysis		
BRIDGE	Harvest	
Closing of session	Connecting to the beginning	
Students' life	Everyday reality is challenged	

Figure 1: The process. Adaptation from: Knill, Levine & Levine, 2005, Pp.94—95

The figure 2 represents the same structure explained above, but within a process of several sessions and is intended to ease the comprehension of the reader. As an example, the warm-up phase and the harvesting phase may last longer or shorter according to the needs of the participants. A pick in the working process and its intensity is seen in the middle of the process. There is a distinct beginning and end to the process.
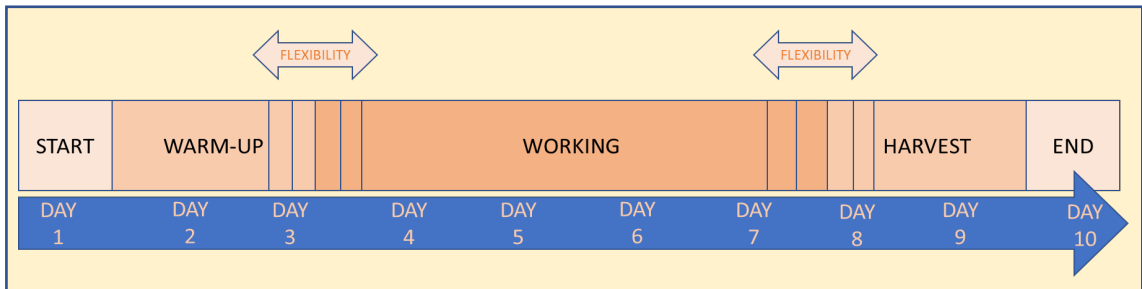

Figure 2: An example of the basic structure for a single session and the complete process and how it may unfold over a ten-week process

Arts-based eco-social pedagogical approach in a nutshell:

By adapting the expressive arts therapy framework to the educational environment and in relation to the current crisis, the approach seeks to increase pupils' eco-social skills, well-being, aesthetic concerns, and sensitivity. It strives to re-aestheticize students' lives and re-stimulate their senses, that may be numbed by modern lifestyles; at rediscovering this lost contact with the phenomena of life and create a dialogue with them through various artistic means and a phenomenological approach. Furthermore, it aims at helping students re-situate themselves in this world as holistic and interconnected beings and encourages them to change paradigms by promoting new values and new behaviors. As a result, it may help students reconcile sensitively to the more-than-human world while simultaneously unlearning their destructive behaviors (Atkins & Snyder, 2017). Following the expressive arts therapy framework, arts-based eco-social pedagogy is about relationships, encounters, and dialogue through an immersion into the realm of arts and life phenomena. Involved in the process,

participants may harvest the findings of this sensuous and existential inquiry which enable transformation to take place. The process is grounded within the arts and the group work (see figure 3).
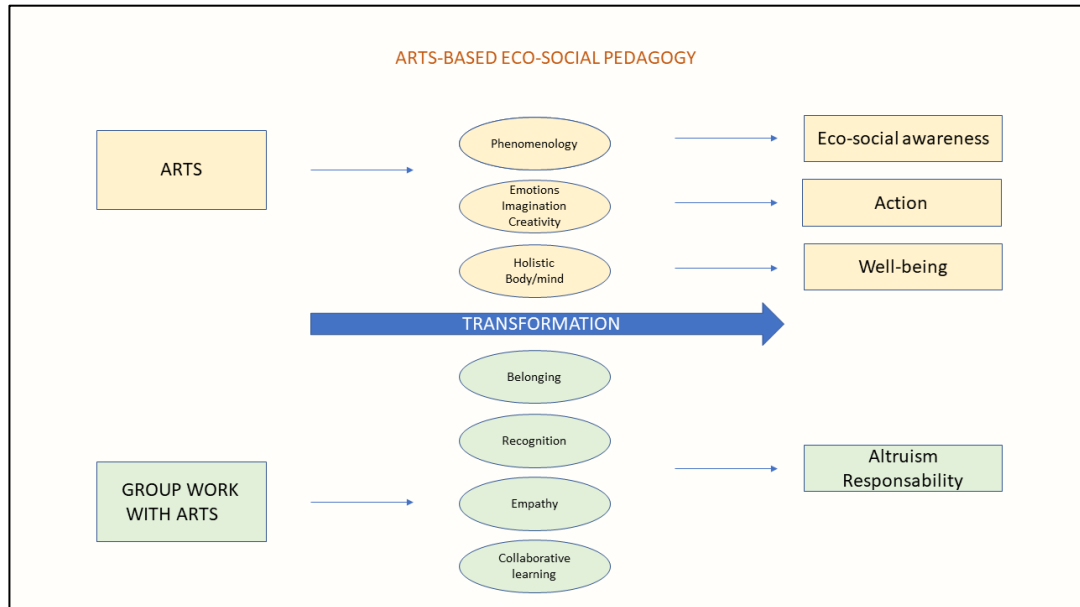
Figure 3: Arts-based eco-social pedagogical approach in group setting in a nutshell

The arts offer a means for the participants to be emotionally, meaningfully, and holistically involved, and foster creativity and imagination. Additionally, the arts contribute to the phenomenological dialogue by helping participants to connect to life phenomena and engage. As a result, it might help the participants develop a sense of agency, improve their wellbeing, and eco-social awareness. Furthermore, if each participant's process is individual and personal, group work adds beneficial features that enhance the individual process by creating a space for a sense of recognition and belonging, fostering the development of empathy, and providing a chance for collaborative learning. As a result, altruism and a sense of responsibility may emerge.

3 Research methodology: a triangulated phenomenological study

In light of the phenomenological framework of the examined approach and my own experience with phenomenology as an art therapist, I chose a phenomenological strategy for this study. Furthermore, as the aim of the investigation is to find social, cultural, and existential emerging meanings with a fresh perspective and explore concepts related to individual experience and perception, phenomenology can be a powerful methodology (Lin, 2017). Although this study understands the difficulties and limitations of phenomenology and does not aim to dive deep into its realm, it does serve as a strong starting point. Furthermore, to help improve the trustworthiness of the findings and overcome the subjective realm of qualitative study, triangulation was used as a research strategy. Triangulation, which usually refers to researcher and data triangulation, is intended to increase understanding of the investigated phenomena and perhaps overcome biases by using other angles in approaching the phenomena, but because of its complexity, it may present difficulties for a less experienced researcher (Noble & Heale, 2019). Triangulation, says Patton, is "a form of comparative analysis" of data, in which the employment of various approaches can highlight various features of empirical reality (Patton, 1999, p. 1194). In this phenomenological study, triangulation refers to different pathways and methods to approach a phenomenon and gain deeper understanding of it, as well as the use of a second observer source. However, triangulation is employed cautiously and sparingly in this study.

Phenomenology is a complex and vast branch of philosophy which has been used by qualitative researchers in recent decades, also known as Phenomenological Research (PR) (Emiliussen, et al., 2021). Due to its widespread approval and popularity, there are now many different theories and a wide range of nuances in its interpretation and utilization (Patton, 1990, p. 104), which presents challenges and maybe confusion in its pragmatic use because there are no clear guidelines on PR (Emiliussen, et al., 2021). As a result, it could be beneficial to try to understand phenomenology from the standpoint of a

specific philosophical school and phenomenological approach (for example, Husserl, Heidegger, Merleau-Ponty, descriptive or interpretive). Without delving into this debate and for the sake of this particular study, only a few phenomenological principles and notions will be followed.

Phenomenology has been described earlier in the conceptual framework from its philosophical standpoint and as a core element in the practice of expressive arts therapy, which relies on traditional phenomenological thinking, particularly on the Husserlian school (Knill, Levine & Levine, 2005, p. 21). As a research design, phenomenology is more of an adaptation into a scientific research model (Padilla-Dìaz, 2015) with a risk of losing the refinement and sophistication of phenomenological essence (Emiliussen, et al., 2021). Nonetheless, phenomenology as a research design can be meaningful when trying to grasp the depth of a lived experience from the participants and study phenomena (Padilla-Dìaz, 2015) and at the same time it can be a challenging and demanding one. It is important to understand that pure phenomenology, as it is described in philosophy literature calls for a particular thoroughness, experience, and comprehension from the researcher, as well as a necessity to "dive-in", of transcendence; for that reason, it is not a mere mental exercise and may provide several practical difficulties when used in the field.

Keeping this in mind, the PR strategy starts with the capacity to approach phenomena without preconceived notions, concepts, or judgments in an effort of accuracy in describing the phenomena, in other words to "go back to the things themselves" (Husserl, 2001, p. 168) "to reveal the essence of things, and to provide insights into social phenomenon" (Lin, 2017, p. 469). This relates to the concept of *epoche* in Husserlian phenomenology, Greek word for "suspension of judgment", also known as the concept of *bracketing*, which should allow unexpected meanings to arise from the data (Chan, Fung & Chien, 2013). In other words, by setting away all prior knowledge and personal beliefs, the researcher seeks to describe the phenomenon in its purest form while interfering as little as possible with its emergent essence and meaning (Streubert & Carpenter, 2011, p. 77). If a study were to be rigorously phenomenological, bracketing would be

advised to begin even before the literature review, conceptual framework, and data collection have begun and should be ongoing throughout the study process. The researcher's preconceptions about the research topic may undoubtedly alter as a result of a previous thorough literature review. Keeping an open mind will prevent the researcher's preconceptions from influencing how the study develops and what it discovers, which poses significant planning and research justification challenges (Chan, Fung, & Chien, 2013).

The phenomenological approach is purposefully used in this study as a combination of conceptual and practical guidance from phenomenological literature, other qualitative approach resources, and within the framework of expressive arts therapy. An expressive arts therapist functions very much like a researcher conducting a phenomenological investigation into the phenomena of the patient they are working with, hence a set of existing guidelines and methods on how to approach phenomena, very useful for this research project. Similar guidelines may be found in Huhtinen-Hildén and Isola's observation model, where participants' experiences and observations are combined to deepen impact assessment and where even the tiniest participants' changes are taken into consideration and evaluated over the course of a process (2021).

Overall, the qualitative paradigm's wide range of approaches, theoretical viewpoints, and adaptable designs enable the strategy to be changed in response to new information as the research progresses, making qualitative research plan rather unique and challenging to template (Leavy, 2017, p. 124). However, the choice of methodology which was guided by the subject under investigation is despite the strategical challenges, nevertheless seeking for a rigorous strategy which could shed some light on the studied phenomenon.

This triangulated phenomenological model encompasses descriptive and interpretive phenomenology, as well as elements from expressive arts therapy. It can be resumed to three aspects: 1: bracketing to some extent by acknowledging influence of own preconceptions and consciously recognizing them while investigating and maintaining open curiosity. 2: Phenomenological observations

of phenomena as in the observational model described in Huhtinen-Hildén work (Huhtinen-Hildén & Isola, 2021) and expressive arts therapy literature. 3: Finding core elements emerge from phenomena, also from art works, and find meaning in them.

4 Implementation of the study

In this chapter, the implementation of the research will be described. The data collection and analysis methods will be explained and research ethics that are guiding the study will be presented.

4.1 Data collection

The data for the study was generated and collected using arts-based eco-social pedagogical approach with a class of 6th-grade students in a primary school in Southern Finland. Phenomenological observations, open discussion with participants, audio recording, and a semi-structured interview of the teacher were used to gather data (cf. references). Group and individual discussion with participants took place during the process to enable an authentic and safe interaction between participants and researcher. The group consisted of 23 students, their teacher and the teacher's assistant. The class participating in the study was selected in collaboration with the school principal and teachers. As 6th graders, the class had already undergone many years together with their teacher. This year of the study, the students spent their final months together before beginning secondary school.

The teacher, who was dedicated for the class, described it as especially challenging on many levels, with poor group dynamics, behavioural and interaction issues, and little, if any, improvement over time. I did find too this class particularly challenging, even though very sympathetic as well. The difficulties stemmed from the constant need to remind students of classroom basic rules, the strong division between students, and from the unequal atmosphere in the classroom. The class was clearly divided into boys' and girls' groups, with the boys expressing open disgust towards the girls, referring to a "girl virus." Subgroups existed within those groups. Four of the boys in particular were tightly "partners in crime" on the boys' side. The rest of the class even urged me to be wary of this quatuor. They occupied a lot of space and attention in the class by

being loud, restless, aggressive, and defiant. Two of the girls on the girls' side were unusually silent and withdrawn from the rest of the group. The teacher had notified me that they had never been able to get them to speak up and that one of them might even be intimidated by him/her. Finally, there were some students in the class who were ready to learn, sociable, and motivated, but who did not have the opportunity to thrive in the midst of it all. I was not sure at first that the choice of class for this particular study was appropriate but decided by virtue of inclusion to pursue the study with them and embraced the challenges as enriching the research. Any student should be able to participate in environmental education, and this approach was designed to welcome all types of participants.

In this study of arts-based eco-social pedagogical approach, understanding the concept of process and how it evolves over time is crucial to comprehending the effects and implications. For the practicality of this particular study, the process was implemented over a six-week period.

Here is a brief description of the field work:

The length
The process unfolded over a six-session process, over six consecutive weeks. Each session lasted 1 hour 30 minutes, during participants' usual school day, with their teacher and teacher's assistant present.

First meeting
I went to meet the classroom prior to the beginning of the data collection/construction/generation to establish a first contact, present myself to the participants, and have them introduce themselves to me. The class warmly welcomed me, greeting me in a variety of languages and curious to know what we will be doing.

Study environment
The study took place in the participants' familiar classroom, but it was intentionally "altered" according to the expressive arts therapy's framework to create the

liminal space, providing a semi-natural environment for the participants (Knill, Levine & Levine, 2005). This means changing the furniture's places to leave space for a circle of sitting pillows and using ambient relaxing music.

A safe start

At the beginning of the process, the secure framework was established so that students could feel accepted and safe as members of the group. It was critical to begin the project by establishing shared ground principles, which included respect for all points of view. Those were reflected on, written, and signed by the participants themselves. It is critical that the working environment be secure and private so that all participants feel free and comfortable to participate fully in the process (Malchiodi, 2003). To create the rules, the group and I chose to use a positive lens instead of using words such as "don't do this". Those were as an example "Give others a chance to express themselves and wait your turn to respond".

The ritual

At the start of each session, I utilized a Tingsha bell for this purpose. The participants remained silent and listened to the sound each time the bell rung. They raised their finger when the sound was no longer audible and only then when everyone would have the finger up, we would start the working. This is a ritual in which the participants took great pleasure. It also allowed them to sit and relax as we waited for everyone to be ready before we begun. When the bell ring, they may realize they are no longer in everyday school day, but in a realm of possibility.

Roundtable

We would start with a round-table discussion after the bell had rung to map everyone's mood. This would take place in a delicate manner, particularly at the start of our process, when participants may not yet feel comfortable sharing their own feelings. It does provide them the option to express how they are feeling right now, but they are not obligated to do so. The roundtable also gives the possibility for the participants to be present in the process and be acknowledged. In the first

session, they only had to say their name. This allowed the shy and quiet participants to take part without giving too much of themselves. We would choose the colour of the day in the second session and convey the feeling of the day with thumbs up, down, or in the centre in the third session. We would already choose a word to describe the mood of the day in the fourth session. In the fifth session, we shared few words on how everyone day started. At the sixth and last session, I would ask them openly how they feel and let them answer.

On certain days during the roundtable, the speaking-turn would be given in the order in which we were seated; on other days, I would ask the participants to pass "the speaking-turn ball" to another participant. As a result, they had to notify all the participants so that no one was left without a chance to speak. Furthermore, when the turn is given by another participant, there is a bigger motivation to speak up and a sense of a cohesive group can emerge.

The warm-up

After the roundtable, we would be doing a warming-up exercise. The warming-ups are meant to prepare for the working-phase. Those might take the form of a game, a relaxation exercise, or a pre-creative working. They were designed forehand but would always adapt for the here-and-now situation. For example, with a restless group and depending on their needs of the moments, I would either chose a relaxing and anchoring exercise, or on the contrary, an exercise that would help them to get the extra energy out.

The working

This phase is longer than other phases, as we take time to dive into creative practice, individually, by pair, or as a whole group. With this group we mainly used collage, painting, drawing, movement, and clay work.

The sharing and harvesting phase

This is a time of harvest and sharing of what has been accomplished throughout creative activity. Depending on the creative task, we might have a "show", sometimes even staged, or we simply present the artwork to the rest of the group

with words or no words at all. Sometimes, we enter into an experiential encounter with the artwork where the experience of it is what matters. Those artworks sharing enable a discussion and reflection to take place between students and the harvest of key learnings, new questions, and sometimes epiphanies.

The closing up

At the end, we gather back into the circle of sitting pillows. We share in which state we leave the session and realize how different it is from when it began. Then we might have a moment of silence, music, or some relaxation, so we know it is the end and we are prepared to leave the space. Finally, we clean the classroom together by putting back the chairs and tables in their places. Students get back behind their own tables, while I stand next to the teacher in front of the class. We say thank you and goodbyes.

The data was handled confidentially and is reported here in an anonymous way according to General Data Protection Regulations (GDPR, 2016). My collected notes were kept in a locked closet, while the audio recordings were kept in a recording phone that had been constructed specifically for this reason and was likewise kept in the locked closet. No identifiable information was stored in the computer to secure the participants' identities. No unnecessary data was collected during the study. The following information was collected from participants: social interaction and behavior during the project, discussions and direct quotations from speech, accounts of thoughts, feelings and emotions aroused during the project, age and grade, pictures of works of art created during the research.

In addition, the teacher's own observations were collected during the process. He would be observing the participants and we would be discussing and reflecting on the observations made, either at the moment of collection, or at the end of the session. Those were quite valuable since the teacher had a completely different perspective on the participants than I had and was more sensitive to changes in them. As a result, he was able to spot critical details that I might have missed

otherwise. This allowed for excellent reflective discussions between the teacher and me during the fieldwork.

4.2 Data analysis

There are different ways to fulfil a phenomenological data analysis. This study is using to some extent Interpretive Phenomenological Analysis (IPA), connected to interpretation theories and hermeneutics, which are in some ways connected to expressive arts therapy as well. As with IPA and the participants, expressive arts therapy aims to gain insight on patients' experiences as they attempt to articulate their own and seeks to understand from the patients' point of view. This refers to what Smith and Osborn (2008, p. 53) call IPA as an "empathic hermeneutics" and "questioning hermeneutics" combination, where researcher is empathizing with the participants to try to grasp their experience and at the same time self-reflecting and asking critical questions on the data. This process, according to them, is supposed to enrich the analysis and to be loyal to the participant holistically (ibid). In this chapter, I will explain the process of analysis I underwent. This study's objective is to gain insight on how this particular group of participants in this particular context have responded to the proposed approach in relation to the research question. It does not seek to make instant generalizations; rather, the study may help to clarify potential future possibilities for a more generalized context.

In order to complete the analysis, I familiarised myself with the data by listening to every session's audio recording, read the teacher's interview that had been transcribed and my own notes, and looked through photos that had been taken while data was being collected. Obtaining a good sense of the whole is important in a phenomenological analysis. In order to understand the group dynamic and changes throughout time, I also produced croquis drawings of each sitting circle at the start of our sessions to obtain a visual. Furthermore, I used coding to theme the observations and discussions, as well as graphics. The aim is not in measuring and quantifying but precisely to obtain a holistic picture from different

angles, which is part of the triangulation strategy. The created tables presented in the next chapter (findings) are thus made based on phenomenological observations and reported according to my personal understanding of the studied subject/phenomenon in relation to the research question.

According to the phenomenological framework, the analysis starts with an attempt at bracketing in order to minimize personal assumptions to prevent the data from being corrupted (Tuohy, et al., 2013). However, bracketing, through a Husserlian transcendental perspective poses significant questions on whether it is even possible to achieve. Furthermore, even if accessing the data in its purest and essential form were feasible, the data would eventually need to have a meaning assigned to it in order to understand it, which would lose its much-coveted essence. For Heidegger, it is not possible to have access to the entirety of what is, because - what is- shows itself "only in terms of its manifestation at a given moment in time" (Levine & Levine, 1999, p. 28). This reminds of all the contradictions and tensions existing within the phenomenological field. Therefore, I utilized bracketing in this study to denote having an open mind, remaining curious, and refraining from drawing conclusions prematurely. As accurately put by Stephen K. Levine in reference to the field of expressive arts therapy:" Unless I am willing to let go of my initial idea, I cannot be open to what will arrive" (Levine, 2005, p. 40). Hence, getting familiar with the data with an open mind is extremely important, and is an essential part of the analysis.

One way to approach phenomena is through phenomenological observations, which is according to Husserl an intentional process of grasping reality, in which the phenomenon is approached directly, instead of through a mental representation (Levine, 2005, p. 22). The process of perception happens first through the senses and is followed by a description of what is perceived, and only then is the meaning of what is observed assigned. As an example, before assigning the meaning of a tree to a phenomenon, I first perceive it through what I see (an elevated form, green), what I feel (harsh, warm, sticky), what I hear, smell and so on... Furthermore, I consider recognizing the inevitable own influence as a possible strength and help in the analysis, especially through the

lens of interpretative phenomenology (also known as hermeneutic phenomenology), and Heidegger's concept of *fore-structure*. This idea introduces a new step into the observation process: what do I know and recall that can help me make sense of what I just observed? which is meant to ease the interpretation during the analysis (Mc Comiell-Hemy, Chapman & Francis, 2009). If the researcher is unable to totally eliminate preconceptions, then those may be utilized and included into the study process, along with the researcher's ongoing self-reflection and self-inquiry to maintain interpretations valid and support readers in having an honest assessment of the results (Tuohy, et al., 2013). For instance, it is crucial that readers of this study recognize the unavoidable impact that my prior work as an art therapist utilizing arts-based eco-social pedagogy in various primary schools had on this study. Therefore, it was essential for me to continually self-reflect so that I could utilize my past experiences and knowledge as a strength and support rather than as a factor that would prevent me from being curious, open-minded, and objective in my research, which would otherwise lead to a conflict of interest.

After a thorough and in-depth familiarization of the studied subject, I organized the data into units in order to transform them into meanings and finally obtain a holistic interpretation, which is called coding (Priest, 2002). Phenomenological analysis usually finds meanings from data, instead of using theory to generate codes. In this study, although the codes were initially generated from the data, they were then created in accordance with the research question and the different angles on how I wanted to understand the phenomenon. This process took the form of first having a sense of the whole, and then narrowing codes to more specific units. Codes were made based on observations, open dialogue with participants and teacher's interview. Observations were themselves coded from different perspectives such as the observation model for creative practices is recommending in order to gain a holistic understanding (Huhtinén-Hilden & Isola, 2021): the group dynamic, individuals, art making and through the process in time. Final analysis revealed that not all data were necessarily pertinent for this study, and many were discarded due to time restrictions. Although coding in a

phenomenological study might seem counter intuitive, it helps researchers make insightful interpretations.

An important aspect of the data analysis is that conclusions are not drawn only from the researcher's own perspective, but meanings are partly assigned in co-creation with the participants and the teacher, who worked to some extent as a second observer. This helps with the trustworthiness of the study and the achievement of a more comprehensive understanding of the data. This took the form of reflective discussion moments at the time of data collection where questions such as "what does it mean for you….", "help me understand…", "what do you see…", "how do you feel…", "what happened…", and more direct and guided question such as "have you noticed a difference…" or "how do you relate to this now compare to before…" were asked. This relates to expressive arts therapy work and Patton's "comparative analysis" (Patton, 1999, p. 1194), where I might employ participants and other observers' personal observations and account of feelings and reflect it in parallel with mine. Furthermore, following IPA's approach, the researcher must realize the connections between what people say, think and feel, the difficulties that people might have to express themselves and what they might not want to express and share (Smith & Osborn, 2008, p. 54). Those might be taken into consideration into the data analysis process, either as part of the phenomenon of its own (I analyse the phenomenon as it is: something was just not said) or as part of the self-reflecting process the researcher undergoes (Fore-structure concept, questioning hermeneutics: something was left unsaid, what could be the reason behind it?).

The three key data analysis phases, which were carried out in a juggling discussion manner between the researcher and the participants, are summarized as follows: (1) Familiarize with the subject: bracketing and phenomenological observations/approach (2) Coding: organizing data to identify key concepts and categories (3) Find meaning.

4.3 Research ethics

The participants, who included the school director, teacher, teacher's assistant, students, and their parents, were given written information about the study (its purpose, content, and data collection process) and they could give informed consent to participate. Participants were made aware that their participation in the study was entirely voluntary, and that they might withdraw at any time without incurring any consequences. During the process, the participants produced artworks, so permission to document with photography and use the images in my thesis was asked in written and signed by the participants. No unnecessary data that do not support the research process were collected. Furthermore, the project promoted equality and nondiscrimination by accepting the class as it was and its students as a part of the study regardless of their identities and background.

The study's potential risks, disadvantages and sensitive matters were taken into consideration. There were no notable risks or disadvantages associated with participating in the study, however sensitive topics like revealing one's personal thoughts and emotions were acknowledged and handled with caution. Possible conflicts that could arise between students were taken into account. If this were to occur, the matter would be handled by the entire group.

It is also worth mentioning that no unsafe or hazardous materials were utilized during the process of artmaking, and that recycled products were preferred to reduce waste. Moreover, by its very nature, the research aimed to support sustainable development goals, by promoting eco-social skills in students and raising environmental consciousness. Overall, the guidelines of Finnish Advisory Board on Research Integrity for a responsible and ethical conduct of research (TENK, 2012; 2019) and ARENE ethical recommendations for thesis writing and process were followed.

Furthermore, I consider ethical research practice as requiring transparency and trustworthiness. As a researcher, my aim was to fully respect the integrity and authenticity of the participants' voices as well as the study process, without taking

sides in order to avoid biasing the results, while also acknowledging the role of inevitable influence from my own perspective. Indeed, given my previous experience as an expressive arts therapist and my long-standing use of the arts-based eco-social approach in primary schools, I had to take additional precautions to ensure that my own biases wouldn't affect the results. The study's implementation, however, benefited from my prior experience. It is also important to note that discovering and comprehending the study's results objectively would be useful for my future work in this area because it would inform how to modify or improve the strategy, as well as sharing the findings with peer colleagues. Therefore, emphasis was placed in particular on rigorous and ethical work. For example, to promote greater objectivity, triangulation and participant co-understanding of the findings were essential. Making sense of the emerging meanings must be done in collaboration with the participant, just like in an expressive arts therapy session.

In this study, literature was chosen to help comprehend earlier studies' findings and ongoing research in the area of interest relevant to the study's issue. The quality, relevance, and scope of the literature chosen for this study from national and international scholars and institutions were therefore taken into consideration, such as peer reviewed research within international collaboration and significance. Furthermore, literature was chosen from different domains of expertise to gain wider insight into the topic. These fields included ecological, anthropological, philosophical, cultural, and educational sciences. The literature not only demonstrates the extremely relevant issues the study is examining by outlining the current research trends, but also offers insight into possible future research and put to light possible gaps and flaws.

Finally, an essential part of the academic writing and research process has been the peer review process with my fellow colleagues and thesis supervisor, which promotes good scientific practice. The methodology, design, data collection, analysis, and study limitations are all open to the readers, and the thesis will follow the principle of open access.

5 Findings

The research question was: How can the application of an arts-based eco-social approach in the Finnish primary school system help address the environmental crisis? In this chapter, I will present how the overall process unfolded over time and I will outline the main findings from the triangulated phenomenological analysis. The research identified five key outcomes of the arts-based eco-social pedagogical approach that stood out through two complementary lenses: how the approach generates understanding of the subject and how the approach affects participants in relation to the subject and regarding the environmental issue. These findings deepen our comprehension and shed light on the field's potential future directions. Those are as follows: (1) The process: creating a new culture. (2) Wellbeing and safety, a core foundation (3) A sense of meaningfulness (4) An opportunity to engage (5) Fostering creativity and imagination. Finally, a summary of the findings will be presented.

5.1 The process, creating a new culture

In this subchapter, where the overall process is put under light, I will present a more condensed view of the process through five more general lenses: the overall feeling, the group dynamic and social skills, creativity, well-being and critical thinking and curiosity which serve as a good foundational thread to appreciate the basic changes in the class overtime (Table 1). I will also discuss the process's framework, which was found to be a crucial basis for enabling the participants to work toward the concepts related to eco-social education.

	OVERALL FEELING	GROUP DYNAMIC/ SOCIAL SKILLS	CREATIVITY	WELLBEING	CRITICAL THINKING/ CURIOSITY
Table 1. Main observations over the six days process through five lenses					
DAYS					
	Restless Noisy Energetic Curious Challenging	Bullying Joking Name-calling Girls/boys groups Subgroups Exclusion Sitting next to friends in a circle which is broken between different groups	Low interest in guided tasks, Playfulness for playful tasks, Overall lack of motivation, Indetermination, Not much endurance, Bored, Lack of effort	Apathy Bullying Altercation Playfulness	Learning to listen Joking around Curiosity
2	Restless Noisy Joyful Curious Inappropriate behavior	Disturbance Bullying Strong divides Exclusion Sitting next to friends in the circle, which is not round, but not broken	Low interest, No inspiration, Lack of motivation, Lack of playfulness, Confusion in front of the tasks	Apathy Altercation Bullying Happy	Learning to listen Joking around Curiosity
3	Tiredness 60% have a bad day right at the beginning, Disturbance Defiance Inappropriate behavior Challenging day	Disturbance Strong divides Altercations Disgust to one another Guided to sit next to someone else and doing it with irritation, boys disgusted to be next to girls	Half of the class only participates	Tiredness Bad day for most	Learning to listen As half of the class was dismissed, the other half has the possibility to express themselves Openness

4	A difference is clearly noticed Friendliness Willingness Calmness Silence	More cooperation More inclusion Guided to sit in a circle next to new people. The circle is quite round, unbroken, with no bad comments heard	Showing effort, Following guidelines, Concentration, Curiosity, More elaborate works	Calmness Peacefulness Respect	A start of a conversation Sharing Questioning Reasoning Openness
5	Good day as the previous one. Motivation Attention Interest	Cooperation, Attentiveness for others, Better listening skills, Some who never participated opened up, The circle is round, unbroken, and was created naturally by students themselves who sat next to new persons	Imagination is divided, Many ideas, Common work, Finding interesting	Peacefulness, Calmness, Respect, Less apathy for the most apathetic ones	The conversation continues Curiosity and interest Asking questions
6	Good day as the previous one	Better relations between the students, The circle is round, unbroken, students sit next to friends, but new ones.	Playfulness, Joyful working, imagination is divided, but effort is shown	Sad it ends, Wishing for more, overall good spirit in the class	The conversation continues Curiosity and interest Asking questions

Between the beginning and the end of the process, there was a noticeable difference. This implies that the approach used in the classroom was not

insignificant, but that it is still important to comprehend how and why. After presenting the findings from the overall process, I will present in more detail the findings from the use of the arts-based eco-social approach in relation to the research question.

The process started with a class described by their teacher as "challenging", "divided into boys and girls", "divided into enthusiasts and passives", where a "few disturbed the rest", with "overall poor concentration and social skills, "very negative", "with difficulties to follow basic rules", and with which it was "difficult to get a good team spirit". Due to the challenges facing the class, the teacher refrained from suggesting some activities to the students, such as spending time outside in a forest so that environmental education might take place in the natural world. "It is impossible to think of taking this class outdoors. It breaks my heart that none of these types of activities has been possible with them. Not even using the theater costumes we have here. No, it is impossible".

The teacher had acquainted me with the additional work and efforts required to handle disagreements that might arise in the classroom, to keep the peace, and to remind pupils of the fundamental school rules—work that was separate from that required to teaching. I was also informed that, in order to prevent class turmoil, some creative techniques might not be usable at all with them. Additionally, the teacher had very low confidence in our ability to accomplish anything while still having hope that some changes would occur. In fact, I was expected to generate order in the classroom, which made me realize the challenges ahead and question the possibility of the study. It was indeed critical for the participants to be open and receptive to the suggested approach to be able to understand the effect of the arts-based eco-social approach as an answer to the eco-social crisis. This provided the study's initial insight: teaching, regardless of the subject, calls for a particular state of being from the students, one in which they are responsive and cooperative. As the approach is designed around the participants needs and states of being of the moment, draws from their resources, and may identify possible challenges that they might be experiencing which might affect their involvement (Adibah & Zakaria, 2015;

Levine & Levine, 2011; Malchiodi, 2020), the strategy was found to provide sensitive and effective channels for communicating with the participants. The success, depth, and effectiveness of the process, however, are directly related to the facilitator's ability to identify or create such channels, where the facilitator's skills to create an empathetic relationship with the participants as well as to create a holding and supportive environment are crucial (Levine, 1999; Malchiodi, 2003; Rogers, 2007). Here I describe my attempt to establish a connection with the participants and how it was received:

Even though the class was challenging in many ways, it was nonetheless curious about what we would be doing and about the new methods. I decided thus to take advantage of this intriguing novelty to keep their curiosity, interest, and attention alive and start creating the bond with them. This manifested as my acting somewhat clownishly around them, making them laugh, and maintaining the element of surprise surrounding artistic practices. Furthermore, I was transparent, honest, and natural with them. By adopting this approach, I underwent what is called in the field of expressive arts therapy "a process of amplification" which demonstrates to the participants that the "activity of play is valued and welcomed" (Levine & Levine, 1999, p. 265), which enables them to give up old structures and ways of being to enter the space of possibilities and experimentation. Furthermore, since the teacher had introduced them to many languages which they were proud of, I chose to use my background as a French person to share my culture and mother tongue. I did this by teaching them words at their request, by answering their questions about France, and by talking about the Eiffel Tower and how I scaled it as a child, which according to them was "impressive". This brought up a lot of interest from their part as they kept on asking me questions about it and about France. Additionally, along with using our language and cultural differences to spark conversation and encourage critical thinking on their part, I also engaged them in grammar corrections when I talked, which they enthusiastically took part in.

Furthermore, the creation of our common rules in our first session which aimed to create a safe foundation for our working and take them as active and

responsible members of the process, was taken seriously by the participants, who took much time to think and discuss them together, ask opinion from others and make sure everyone was satisfied. Despite the fact that I was anticipating already having to deal with misconducts in our first session, I discovered that the participants, given the chance to actively participate, could actually collaborate together with just a little help from me to make sure everyone had a chance to speak up. The creation of common rules which aimed to secure the needs of the participants from their own wish, such as to be listened to and to be respected, revealed to be an important element to them, even though they might have had difficulties times to times to respect their own rules.

Finally, the creation of the liminal and holding environment revealed to be necessary in supporting the process and the participants. Even though participants had just entered the room as very noisy, restless, and occasionally even hostile individuals, they quickly adapted to this new environment by remaining silent, rather calm, and engaged during the sacred Tingsha bell moment. They also found their place on the pillows soon after they entered the room. This brings to mind the idea of liminality in therapeutic work, where clients are viewed entering therapy with the desire to find relief from the possible chaotic condition they may be experiencing and attempting to find order and meaning in the liminal space (Knill, Levine & Levine, 2005, p. 45).

An examination of the data collected revealed that the structure of the process, rituals and holding environment are encouraging and enabling in participants new ways of being, which promotes responsiveness, calmness, attentiveness, and participation. This was especially clear at the start of our process when participants were still adjusting to their challenges, as misconduct was discovered particularly in the gaps and transitions of the procedure, but not too much during the working. For example, being restless while entering the room, and calming down while sitting on the pillow, being restless again when I would prepare materials, and calmer and more responsive when the work would start. This improved over the course of the process; however, it took longer for certain participants who had more severe behavioral problems. The more extreme

misconducts were, for example, participants going inside the classroom's closet and making material fall while laughing loudly and throwing objects across the classroom. In the same way, participants who were reserved and hiding from attention, would hide during transitions (I come in the classroom in a way that no one can notice me, but I sit in the circle with everyone. I participate in the creative work but hide it as soon as it is done). Over time, the group would become more harmonious and the two extremes on the scale would become less distinct. According to the teacher, changes occurred as the participants "adopted the new routines and culture in the classroom", making the approach more efficient within a process, and raising the question of the interest in creating such a culture from the beginning, when a teacher starts with a new class. Participants had indicated that they wanted the teacher to keep using the Tingsha bell after I would be gone, and the teacher enthusiastically welcomed the idea. This shows that the new routines had a favorable effect on the participants as they were able to recognize their benefits and wanted to maintain them.

The fourth session was when new habits and culture were integrated, and this is when behavioral changes were most noticeable (see Table 1). The beginning of our sessions, sitting in the circle, were intense in learning and reflecting. I would ask them to look and observe the circle and describe it to the group, from where we would continue the discussion. The way the participants would sit together had great significance to the group dynamics. The group was clearly divided in the first session, with girls sitting on one side and boys on the other, and only close friends were seated next to each other. Additionally, the circle was not uniformly circular and was divided into sections with plenty of room between them, with some participants hiding behind others. I asked, "so tell me why you think the circle is like this?", from where the concept of "girl virus" would have come up. It was the perfect occasion to reflect on the idea because the group was controlled, receptive to discussion, and it had been brought up by them. In other sessions I would ask again "so what observations from our circle can be done today?", "are you always sitting on the same spot, next to the same person?", "how would it feel to sit next to a new person?". The circle evolved over time, to become in our last sessions a more democratic and inclusive one.

Regarding the creative working methods, they appeared to be novel to the participants. For instance, at the beginning of our process, some of them were quite picky about the appearance of drawings or other works of art, placing more importance on the technical aspects and aesthetic standards than on meaningfulness. This came up with some participants saying out loud "this is how you are supposed to draw", or by them asking technical guidelines on how to draw, and "it's horrible, I don't know how to draw it". The teacher also assisted those participants who sought assistance with technical adjustments to their work. Furthermore, the content of the artworks was also filtered by what is appropriate to do according to their beliefs and what other people think; in other words, they were censoring themselves. Some participants found it extremely challenging to engage in the creative process at all, especially if they were required to work alone. This was brought about by their anxious attitude when sitting in front of the art materials and their inability to even begin. However, in order for the participants to benefit from the process, old habits and ways of thinking must be abandoned in order to make room for something new to appear (Knill, Levine & Levine, 2005). The facilitator's expertise and sensibility are responsible in finding the proper path of exploration that suits the best each participant, which emphasizes the legitimacy of the process' structure, where warming-up exercises are crucial to guide participants towards working phase, in a single session as well as within the whole process (see figure 3). Working with more abstract content (such as with the eyes closed, with both hands) and with playful exercises helped the participants to lose it up and dive into the art process.

However, I agree with the teacher that if the process had lasted longer, more time would have been provided for the warm-up phase, because this particular class clearly needed a more thorough process. In order to adequately generate and explore ideas relating to environmental issues, a solid working foundation was essential. Following the participants' understanding of the new working procedures, the process' significance was given more emphasis, which also allowed the participants to begin appreciating the low-skill high-sensitivity notion

of the artworks beyond their technical aspects. They could reflect together around the artworks, show interest and above all, not judge them.

The overall process findings can be **summarized as follows**: our fourth session saw a noticeable difference from the start of our process. The participants started with challenging behaviors, from aggressive, apathic, and avoidant, to calmer, more interested, participative, and more joyful. The group started as a broken one and ended as a more cohesive and inclusive one. Furthermore, the creative working process evolved from low interest, lack of motivation, high technical standard expectations, and censorship, to a lighter and more cheerful process of experimentation, unleashed imagination and expanded creativity. Less bullying was noticed as well as more freedom to be oneself. The changes were noticed within the group dynamic, but also in participants as individuals, even if subtle changes. For instance, a participant who, in our first sessions, refused to show the group any of his or her personal artworks finally, however briefly, presented something to the group in the last ones. The analysis of the data suggests that the role of the facilitator in creating the Rogerian setup for the process (relationship with participants, holding environment, suitable tasks, and coherent guidance in the process) is critical in the success of the process, and that this Rogerian setup is itself critical in the success of the process. Finally, the idea of process itself is important to understand that changes appear especially over time, and within a certain pathway, where one thing leads to another one (process of one session, and process of six weeks. How do I start, and how do I end). This gives time for participants to adopt new working methods, and new culture in the classroom, and as a result integrate new ways of being. The arts-based eco-social approach comes out to be suitable to create the right conditions for the participants to be involved in the process and enable change over time but is still influenced by the facilitator's own expertise, sensibility, and ability to create a good relationship with the participants. After examining the need for a solid foundation to support working on the environmental question and the concepts that emerged in the conceptual framework in relation to the research question, I will now elaborate on the findings in accordance with the themes that emerged.

5.2 Wellbeing and safety, a core foundation

Following the notion just discussed regarding the significance of the process's structure, a secure working foundation and the promotion of wellbeing appeared to be equally important. The examination of the data showed that involvement in the process was challenging, and occasionally impossible, if the participants were not secure and well enough. This became clear especially in the third session, where only half of the class participated due to tiredness and overall, a "bad day" (see table 1). Furthermore, adding to the challenge was pairing with another participant with whom it would not be comfortable to be with (for example boy and girl). It could get very uncomfortable, even painful, at times to work in a small group with undesired peers. For instance, participants might be seated next to one another but turn their backs on one another and remain silent. Personal difficulties, unmet fundamental needs, disagreements, bullying, apathy, and toxic relationships were all factors that would prohibit the participant from truly engaging in the process, and the potential for environmental education would hence remain severely constrained. The teacher expressed to me the difficulties faced with the class in the basic curriculum teaching, how restricting the class's options was considered as an obligation, and how the teacher's own wellbeing was affected by the class which was in turn possibly affecting the class as well.

The class's collective and individual resiliency and coping abilities were impaired. For example, some participants had reported to me that they could not express themselves for fear of being laughed at, which consequently transferred to the art making process. Other participants claimed that they were unable to participate since there was not enough room for them to do so because other participants would monopolize the attention and disrupt the class. Furthermore, the teacher had notified me that some participants were excluding themselves from the group, and remained for most of the time totally withdrawn, which I could notice myself. In fact, the teacher was unable to get two of the students to speak out at all during the school years and would not be able to identify their voices. It was with curiosity and interest that the teacher observed me having a discussion with them while they were working on their artwork, as it was pointed out to me "Oh

that is so interesting to see, I have not been able to hear their voice in the many years I have taught them. I think they are afraid of me. It is so good if you can create a contact with them". If little words were spoken, the conversation would be carried out through and in concert with the artwork with high sensitivity and no intrusion, which may have released tension, and enable a first contact.

Finally, the teacher reported that the participants' excessive use of computers and phones in their leisure time, as well as the stimuli that resulted from it, contributed to their lack of motivation and interest for school in general, as well as their apathy and misconduct. Also, according to what was reported to me, the participants had never been taught how to communicate their emotions and express themselves, which made communication difficult and easily raised conflicts. There were so many fundamental issues that needed to be tackled that teaching was challenging in any situation.

The arts-based eco-social approach appeared to be appropriate for providing participants with a secure foundation that would support the process and facilitate the working. With its high adaptability and attentiveness to the moment and the participants' needs and by assisting them in sharing own needs, the strategy could be adjusted in accordance. Additionally, it could help identify participants' personal challenges that may be handled in a safe manner. This all happened with the creation of the empathetic space, where participants' needs would be taken into consideration and answered to, when possible ("I can see you are tired, would you need to take a break?", "I realize you have had a rough day", "I understand, this might have been hard for you"), and by giving the possibility for each participant to express themselves and be listened to in a non-judgmental way. I would serve as a mediator throughout the discussions and ensure that the values of democracy and respect were upheld. I would also occasionally remind the participants of the agreement rules we created and agreed upon, when they would not be already reminded by the participants themselves. Some participants, also more quiet ones, took advantage of this possibility by engaging in the discussions, even with few words only, showing interest for their peers by asking them questions, or knocking head for approvement. Furthermore, those

discussions moments could bring light on the nature of the relationships, lift up new information to the group, bring awareness on certain subjects and guide reflection. For example, the concept of "girl virus" was discussed, and if the boys' groups thought it was just funny, they could realize the effects it had done on the girls' group. Also, common points and common interests would be found between participants in those discussions' moments ("Me neither, I don't own a pet", "Oh really you like this music too") and shared lifestyle views (I also spend lot of time in the forest, and it makes me angry too to see so much trash").

Regarding the creative and playful activities, we undertook, the low-skill high sensitivity concept seemed to be a great support to overcome skill-related obstacles and allowed participants to be involved equally and joyfully in the process and find the deeper meanings in the act of artmaking, of poiesis. Additionally, the artworks provided a means and support for participants to communicate their thoughts and feelings, some of which could not be or did not want to be expressed in words. The becoming visible and being witnessed during the presentations of the artworks, were taken seriously by the participants who remained mostly quiet and attentive during one's presentation, even if this demanded to sit quiet for a long period of time. Furthermore, they show effort while presenting their own work, by being open, enthusiastic, and eagerly waiting for questions from their peers at the end of the presentation, assigning themselves the talk turn for who would raise hand. No one was forced to present anything. Additionally, participants had the option to exhibit the works in the manner that most comfortably suited them, sometimes by simply showing rather than speaking, and other times by stating, "this is something I don't want to share." Unexpectedly, there was a lot to say, so I had to rearrange our agenda to allow for more speaking time. The sharing moment's "sacrality" may have been a sign of participants' deeper desire to understand one another more intimately and to be seen at a deeper level. The phenomenological approach to observation was mostly followed by the participants ("I see you have used a lot of blue in your painting", "when I look at your work, this comes to my mind", "tell me more about why you draw this character"), radically limiting judgmental and critical comments, and enabling fruitful discussion around the artwork, the creator, and the rest of

the group. The sharing moment being at the end of the session, which was itself at the end of the participants' school day, could have been anticipated to be overly difficult. Yet, it was the calmest moment of the process, where the participants would be the most receptive and engaged, and where we could experience a pleasant and joyful moment together of reflection.

To summarize, it appeared that the participants' wellbeing and sense of security were fundamental in order for them to engage in the process and benefit from it. The moments of intimate sharing, during discussion and art making, were fruitful for the reinforcement of the bond between participants, and the dissipation of the divides as new "relationships" and new dynamics were created, which in turn enabled the process to evolve in depth and the concepts related to eco-social education to be tackled. Furthermore, as participants had the possibility to experience a sense of "being in the same boat" with each other, were own intimate stories could be seen and recognized in a non-judgemental way, dialogue could be created. This was especially evident when a participant disclosed a more delicate and personal subject, which encouraged other students to do the same, or when a participant would impart their own knowledge and wisdom on a topic with a great desire to make a point, acting as a catalyst for other participants.

Arts-based eco-social approach is suitable for creating a holding environment for the participants to feel safe and have their own needs recognized and attended to. This is also dependent on the level of trust developed with the facilitator, and within the process. Finally, the data analysis and findings demonstrate that the approach may benefit the participants in many different ways, which are not necessarily directly linked to the environmental question, but which are nevertheless related to it. As an example, to learn to express oneself better, to overcome personal challenges and create better relationships in the class.

5.3 A sense of meaningfulness

One important aspect which came up during data analysis is the way participants can get involved in the process and find own interest in being involved in it. This was already seen and explained above through the engagement participants had when they could explain their own intimate narratives and find benefit in doing so. Too abstract concepts left participants confused. This difficulty to grasp certain tasks, notions and ideas would make the working process difficult and meaningless. For example, tackling environmental crisis in general appeared to be too overwhelming, or simply too challenging to understand. On the contrary, environmental issue's themes may have been handled through participants' own and personal lens of interest, such as pets, hobbies, friendships, family, which made at the same time the process less fierce and more sensitive. In other words, being able to relate to the topic, understand it and feel connected to it, were important. Too theoretical, and complex concepts may distance the student from the subject. Discussions and reflection moments were richer and deeper when it was related directly to participants' own lives, from where it could be then expanded to more general concepts.

For example, participants were asked to create an image of themselves and the things that are most important to them. Many of the images featured pets. The creative working proceeded with what the pets needed most, from which we might broaden the perspective to include all animals and the natural world. Themes like love, care, attention, food, and exercise would then emerge. One participant, who was more aware of living an environmentally conscious lifestyle, would make insightful remarks about how pollution is bad for the environment and the animals. Furthermore, I could take advantage of the motivation in the class to broaden our reflection into "but hey, did you know that humans are animals too? Is pollution harming us too? Where is pollution coming from? What would humans need? Would we need same things that the pets?" and with humour "do we need love and caring too?". Those helped the participants to expand their thinking and take new perspectives on related themes. Eco-social education was thus more efficient and fruitful when starting from the participants own personal interest and

eased critical thinking. The initiated reflection enabled to pursue the creative working in depth, through for example the making-of a common artwork of what would the perfect planet look like for everyone. Finding a shared meaning and understanding was made possible by the group's common artwork around a theme that was generated by the participants and in which they discovered more interest and meaning.

Finally, the sense of meaningfulness appeared to be important for the teacher too. The teacher had reported me that whether or not environmental education is carried out in the classroom, as well as how it is carried out, is entirely up to the teacher's own interest of the subject and the meaning the teacher has assigned to it, reminding about what Wolff (2011) stated on the role and influence of teachers' own worldviews, knowledge, values, and assumptions.

To summarize, the arts-based eco-social approach appears to be effective in calling forth participants' own meaning, finding meaning and generating new meaning with its adaptable facet which draws upon students' own interests. Furthermore, it offers a possibility of time out to reflect on given topics and offers pathways to reflection and exploration through the different creative means offered.

5.4 An opportunity to engage

The meaningfulness of the process enabled participants to find a motivation and a reason to actively engage. They were found to be more involved and active when they felt that they had something to contribute that was significant to them and directly related to them. Moreover, giving them the opportunity to speak up and take a stand appeared to be motivating to act and be empowered by the role and the possibility to have an impact. Debate would occasionally break out during discussion time as some participants attempted to persuade or influence their peers. This served as an excellent catalyst for framing the subject in a more

democratic and empathetic manner and excellent way to wake up apathic behaviours.

Engagement could also be witnessed through approval or disapproval bodily expressions (knocking, smiling, sighing, laughing). Moreover, pathways for engagement were given also for the shyer participants, by asking to show with their thumbs up or down how they felt, or with one word, or a colour, which gave an opportunity to connect to the subject under investigation, have an opinion, and share it. This appeared to be a very effective way to involve everyone.

Furthermore, through playful activities, participants were able to be involved equally which encouraged participation from all the participants, and no one was left out. As the playful activities were intended to take place in a group setting where each participant had their own place, its success depended on the ability of the participants to cooperate. As a result, both the most agitated and the most reserved participants became actively and equally involved and the group became more cohesive. This came up through first of all the possibility to even enrol in such activities, where no misconduct or particular challenges came up, and especially in the joy and the laughter that resulted from it, which looked like the missing team spirit would appear in such occasions. Actually, as part of the strategy, some games demanded to be holding hands as a group, where girls and boys would happily take part in without remembering their supposing common disgust to one another. Furthermore, in order to pair up with a new partner and not only with own best friend, several pair games required to switch partners in the middle of the activity. Once more, no comments were made on it, instead, everyone would be involved respectfully and enthusiastically, which eased the continuation of the process and the involvement in the following tasks.

Finally, being involved in the process participated in a sense of responsibility where actions and consequences could be put to light and reflected on. As an illustration, individuals who disliked it when someone made noise during their turn to present would start to respect other people's turns and remind everyone of the rules, patronizing other participants. Moreover, the responsibility was given when

common artworks would be created. For example, participants were asked to create a common installation from their personal clay works in a way that each work had to find its place in relation to the other works already in place. Most participant thought the exercise was challenging since they felt embarrassed not to interfere negatively with the work of the other participants, seeking to gain approval from their peers. In other words, they had to determine where and how their artwork fit within the larger picture, and how its place affected the result. This brought interesting discussion, as some participants could not find a place at all and decided to just leave their clay work somewhere in an undetermined location with nervous and awkward laugh. The aesthetic response and feedbacks given by participants to other participants' works raised the same sense of responsibility and assisted in training non-judgmental skills and critical thinking.

To summarize, the art-based eco-social approach seem to be helpful in assisting participants to be involved in the process by drawing from their own motivation to take part and giving them a sense of responsibility. Additionally, it provided a platform and opportunity for participants to interact in a secure way, enabling feelings, thoughts, beliefs, and ideas to surface without the fear of being neglected, ignored, or criticized.

5.4 Fostering creativity and imagination

At the beginning of the process, participants had difficulties understanding the creative approach taken, as they expected to be taking part in technical art education. Additionally, most of them gave the impression of lacking imagination and creativity, which was probably due to a lack of interest rather than a genuine lack of creativity. However, I was struck by the strong divide in the quality of the drawings which were created, from highly detailed drawings to some which reminded me of a lot of tadpoles drawing stage (a round form for head and lines for legs). According to the data analysis, the participants who exhibited restless and defiant behaviors produced drawings that resembled tadpoles the most or found it difficult to engage in creative activities in general, as opposed to the other

participants who produced more elaborate drawings and showed interest in and enjoyment from creative activities. Participants who exhibited more difficult behaviors reported in front of the task that "nothing comes to mind", "this is stupid", asked many times "what was the task again?", and when they would engage in creative activity, they would do it quickly—for instance, in two minutes during a thirty-minute allotted for artmaking. In addition, they would disregard the artistic work they produced, either by dumping it like trash on the floor or creating paper airplanes out of it and launching them across the classroom. This group of participants' lack of interest in participating in creative activities was also reflected in the difficulty they had in forming opinions or thoughts about a subject when they would be addressed to and given a chance to speak up.

Guidance was thus required to assist participants in taking part in creative practices. As previously presented, playful activities, low-skill high-sensitivity concept, sense of meaningfulness and agency were supporting participants in being involved in the creative process. Furthermore, the creative process itself provided a channel to the taking shape of this sense of meaningfulness and to develop participants' narratives and ideas. The artworks also gave participants who had trouble speaking up a way to express themselves. This was revealed by participants who did not participate in the discussions without the support of the artwork. Moreover, framing the range of options (Knill, Levine & Levine, 2005), especially for those who did not know where to begin or for those who had a propensity to disperse, like by making jokes about the task, appeared to be necessary and fruitful. For example, the group of challenging participants could produce in collaboration a thoughtful piece of art, where clearly an effort was shown in the details, in the form and in the message behind it.

Exploration of the examined themes was made possible by embracing the artworks for purposes more than mere decoration; by treating "the work on its own terms" (Levine & Levine, 1999, p. 28). Once the participants integrated the new approach, more freedom and playfulness in experimentation was noticed, and less judgmental or critical comments would be made. This is true also from the teacher's perspective who sometimes expressed to me, not without humor,

"look at what this student is doing, now it would be good to have a psychologist in the classroom".

The group of participants that had the most challenges, as the process evolved, found a way to be more involved. This was initiated also by forming small groups appropriately (putting them with other motivated participants who would act as a motor), as well as with the assistance of the teacher who had had a conversation with them. Additionally, the choice of tasks was decisive in finding the pathways to engage them, by helping them find a range of possibilities in how to give shape of what they had to say (Knill, Levine & Levine, 2005). If drawing seemed to be difficult or boring to them, offering the option of a theatrical presentation of the drawing would help them be excited and invested. The same strategy would be applied to participants who withdrew or felt "stuck" in front of the art mediums; if theatrical presentation seemed too overwhelming, it was sufficient to exhibit the artworks without words, as long as each could find own way to participate. Helping participants to find ways to tell something through arts by making what is called in expressive arts therapy *interventions* —dialogue between the facilitator and participant (Ibid., pp. 131—147), by showing different possibilities (what happens if I do like this), offering suggestions (would you like to try it with another color? should we use some collage?), and reflecting (in which way this is not reflecting what you want to say? Tell me more about why you think it's ugly. What worked and what didn't work) was crucial to unleash participants' imagination and creativity.

The group works, when participants had to create something together, were intense in building up cooperation skills. Everyone needed to express their own thoughts through the artwork, but they also needed to come to an agreement on how to do it through the creative process and how the result would look like. Observing the participants working together, I could point out to them if someone was excluded and intervened. These interventions made participants realize themselves, as the process evolved, to collaborate more and better.

Finally, the act of presenting the artworks and opening a dialogue around them held great meaning to the participants. As pointed out earlier, observations made and discussions held with the participants suggested that they wanted to show, share, be seen, and be heard. Those artworks were not mere artworks but held deep and intimate pieces of the participants. If in the very first sessions some participants made a joke of this moment, by ridiculing themselves and their creations, little after little, they would realize how sacred a moment it was and change their attitudes accordingly.

To summarize, the arts-based eco-social approach facilitates the development of imagination and creativity by adapting to the participants and finding proper pathways to working. Additionally, it helps broaden participants' perspectives and helps them elaborate on ideas and develop narratives, as individuals, but also within a group. Furthermore, the creative working within the approach's framework may offer channels for expression, from where in-depth reflection may take place. Finally, the sensitiveness of the approach may help participants to be included in their own meaningful way.

5.5 Summary of the findings

In this section the findings are summarized in tables 1 and 2. Table 2 presents main themes that emerged from data, key related concepts, and findings summary on arts-based eco-social pedagogical approach in relation to the themes.

Table 2. Main themes that emerged from data, key related concepts, and findings summary on arts-based eco-social pedagogical approach in relation to the themes		
THEMES	**KEY CONCEPTS**	**FINDINGS SUMMARY**
WELLBEING	Basic needs, Wellbeing, Safety, Belonging, Recognition,	The approach appears to be appropriate for providing pupils with a secure foundation that will support the process and facilitate the working. Furthermore, it may help identify

	Adults' help as model/partner/encourager, Recognizing own feelings of the moment and responsibility on them (take a break, drink water, go outside…)	student's personal challenges and needs that may be handled in a safe manner. It may answer students' needs by providing appropriate response and strengthens the bond between students and students-adults.
MEANING	Intimacy, Personal life related, Stories, narratives, Concrete things, Everyday life related, Not too overwhelming or abstract or complex, Seeing results	The approach adaptable facet considers the specific needs and desires of the participants. It draws upon students' own interests and expand the concepts. It helps them in finding meaning, generating meaning, and considering existing meaning.
INVOLVEMENT	Playfulness, Responsibility, Emotions, Explaining/sharing to others, Opportunity to speak up, Impact possibility, Opportunity to connect	The approach helps students be involved in the process which is personal to them as individuals and as a part of a group. The process happens in co-creation with them, encourages them to take responsibility and provides them with an opportunity to connect and express themselves.
CREATIVITY	Self-expression, Expression, Tools to express, Tools to think, Medium, Arts intrinsic value	The approach facilitates the development of imagination and creativity and expands the possibilities of the arts. It encourages aesthetic awareness and response.
PROCESS	Change, Transformation, Understanding, Time Where do I come from and where am I going	The approach is more effective within a process. Time is given for new habits, routines, ways of doing, and overall culture to emerge. A clear change in the participants appeared in the fourth session.

Table 3 presents key themes, related affirmations, and counter affirmations, which may ease the understanding of the findings from a different perspective. The purpose of those affirmations and counter affirmations is to emphatically grasp what participants may be experiencing while engaged in the learning process from their point of view. These insights help determine how the learning process might develop and whether it has to be modified accordingly.

Table 3. Key themes, related affirmations, and counter affirmations		
Wellbeing	"I am well and safe enough that I can fully take part in the process"	"I can't participate, I am not well, and I am afraid."
Meaning	"I relate to the topic personally, understand and feel it"	"I don't understand, it is too abstract, overwhelming, and complicated. I cannot relate"
Involvement	"I am given the opportunity to be an active and responsible agent"	"There is nothing I can do or am allowed to do. I don't know how to do, or what to do"
Creativity	"I am given the means and freedom to expand my thinking, to reflect, and imagine different outcomes. It is much fun"	"I don't know how to express this. Nothing comes to my mind. This is boring and meaningless"
Process	"I understand and integrate new routines and ways of doing and being. I started from there, and I ended here. I realize a change"	"I didn't have time to be involved and understand what is expected from me. I need more time"

6 Conclusion and discussion

The research aimed at understanding how can the application of an arts-based eco-social approach in the Finnish primary school system help address the environmental crisis. The findings suggest that the approach may address the eco-social crisis through two complementary lenses, which can be seen as a double learning process: by acting directly on the participants, and at the same time by fostering their engagement with and reflection on the issue. Throughout the conceptual and theoretical framework, which is guiding this study, key concepts have emerged to promote an education towards an ethical way of being in this world. Those are listed as follows: interconnection awareness, transformation, relationships, bonding, empathy, knowledge, skills, attitudes, behaviors, commitment, motivation, values, participation, imagination, creativity, sensitivity, actions, well-being, culture, and narratives. Those concepts have been taken into consideration during data analysis and were informing and underlying the findings.

The findings suggest that the arts-based eco-social approach benefits participants both as individuals and as a group. The benefits gained during research implementation subtly and thoroughly support the global recommendations for environmental education, by enhancing, promoting, and enabling in a holistic way the concepts mentioned above. If it is not possible to speak of a radical transformation, after just six sessions and with a specially challenging group of participants, changes were noticed, which informs about the potential of the approach in a more thorough process. However, it is difficult to understand long-lasting changes that occurred without a longitudinal study. It might be helpful to investigate the approach's long-term benefits by planning a follow-up with the target group and seeing whether changes persist. Additionally, an individual, in-depth interview with each participant at the end of the process, as opposed to the final group discussion, would have provided more information about the nature of the changes, allowing the benefits to be more clearly understood.

Even if they were subtle, these changes could be seen in the dynamics of the group and the relationships between the participants, where social skills would be enhanced (better listening, understanding, and cooperating), as well as in the individuals themselves, where increased creativity, improved communication, and enhanced wellbeing would be observed. Phenomenological way to approach phenomena, whether a theme, an idea, or a classmate, would help encountering otherness in its diversity in an accepting and empathic manner, which may trigger consequently new ways of being, thinking, as well as new relationships.

Arts, creative and playful practices played a significant role to foster the communication and formulation of one's own narratives, as well as reflection on them. Furthermore, they enabled the making of common understanding and visioning of possible outcomes. However, the results imply that the working framework, which provided an inclusive setting that was empathic, nonjudgmental, and "participant-centered", and which was offered within a certain structure (how the process unfolds, rituals and holding environment) was critical to the effectiveness and meaningfulness of the creative and learning process. For the creation of this particular framework, the facilitator's capacity to earn trust, their competence, and experience, where each assignment, choice of art medium, and handling of the participants as a group and as individuals required to be thoroughly thought out, appeared to be necessary. Because responsibility and work ethics are required for the process to be successful and safe, the facilitator's professionalism is thus essential.

Artmaking's significance and its potential for change emerged through the act of showing and being seen as well as through ongoing dialogue between creator, facilitator, other participants, and the artwork. Being able to reflect with co-participants while being consciously and actively involved in a working process that held meaning for the participant played a significant role. Reflection during and after creative practice permitted a shift in awareness and opened to new ways of seeing and being. This was helped by the phenomenological way of observing and perceiving which was trained during the sessions, and which promoted news ways to connect to phenomena. In other words, helping

participants to look at things differently, without judgment and keeping an open mind, would help critical thinking, constructive reflection, and the emergence of fresh ideas; a change in thinking to appear.

The results show that, if the strategy had benefited the participants personally, it was also instructive for how environmental education might be carried out, by informing on the needs of the participants to be well and secure enough, find meaningfulness and be able to engage purposefully. This supports the idea that merely cognitive and theoretical education on the subject, which is given as opposed to participative or co-created, may not be enough (O'Brien, 2009). Instead, participants need to relate to the topic and be given the opportunity and means to explore it and reflect on it.

Furthermore, as the strategy is attentive and adaptive to the needs of the participants, it may provide a more adequate answer and lead the process more efficiently; data emerging during the process would inform how the process should go on. Based on the study's findings, I designed a graphic (figure 4), where four distinct elements, and in dialogue with one another, illustrate what needs to be considered in order to accomplish environmental education. These include wellbeing (as a basis to move forward), interconnection awareness (bond), and altruism (empathy), which inspires action (responsibility).

Figure 4. Proposition for eco-social integrity based on findings

At a time when teachers and students are already overburdened with too many challenges, sometimes facing burnout or depression, the idea of sustainable education as it is proposed appears to be demanding. Teachers must constantly learn and incorporate new knowledge and approaches that are widely being offered, while regularly adapting to national educational directions changes and dealing with student's increased personal issues. Additionally, the idea of eco-social education as it is presented in the curriculum may be quite difficult to grasp and may be confusing for many (Perkiö, 2020). Implementing eco-social education in the classroom is another challenge for teachers because it doesn't come with an instruction manual, which puts into question its practical applicability or the requirement for the teacher to participate in further training that is abundantly provided in this new market. Furthermore, there are additional obstacles associated with eco-social education in the classroom that are related

to the general school culture and whether it supports the principles and ideals of eco-social education as well as the influence of societal and home culture (Ibid.). It is necessary to consider a number of factors that restrict eco-social education due to forces outside of their control. A very powerful societal influence that runs counter to a sustainable future could corrupt the ideals that are being taught in the classroom about sustainable living. However, this should not prevent eco-social education from taking place, as those newly grown values in the classroom, even subtle ones, may evolve and put pressure on the societal trends, inspire family habits to change or give birth to new fashionable ideals among youngsters. Mostly, it may help an individual participant to relate to the more-than-human world differently.

As evoked by international guidelines on education in relation to the current global context, such as the one of UNESCO's International commission of the futures of education (2021), there is a necessity for a radical change, a transformation, and the need to reinvent education. This overwhelming need required may let believe that it cannot take place anytime soon. Framing a new educational model into an old one, or creating an entirely new model from scratch, must be encouraged by what is known now and what must be done. In other words, it is important to consider the future society wants and comprehend how education fits into this paradigm shift. This calls for a multidisciplinary dialogue to take place, a certain openness for novelty and the letting go of old unfit structures. Furthermore, as argued by Sterling, the education system must incorporate recent advancements in complexity theory, systems theory, learning theory, while also building on previous humanistic educational approaches (2001, p. 8). The need of an understanding of the bigger picture guided him to rephrase the fundamental question of how something can in particular help individuals relate to environment more sustainably, into "How can education and society change together in a mutually affirming way, towards more sustainable patterns for both?" (ibid., p. 21). This question brings great insight into the scope of what is needed in order to act towards a better future.

Arts-based eco-social approach was easily implemented in the participants' daily school life, without burdening more the teacher or the students. Instead, it may offer a time-out for the class to regenerate, and find resources, which may in turn serve as a catalyst to help them face new obstacles with more resiliency. The results of this study suggest that arts-based eco-social approach seem to be propitious in generating well-being and the emergence of eco-social skills and eco-social consciousness in participants, also with a challenging group. If it cannot be on its own a solution to tackle the overwhelming challenges we face, however, in the current frightening global context, where more love, more joy, and better connections are desperately needed, the approach is beneficial to use in the classroom. By offering the possibility to create a new culture, by forming new narratives and opening to see through different perspectives, the approach may contribute, even subtly, to help future generations shape a better world. This could become more evident and better understood if the approach was implemented within a more thorough process, and even greater if it was to be used right at the beginning of the school year during an ongoing process. This prompts me to consider the advantages of creating such a class within the curriculum, one that would not just serve environmental education but also the needs of the students, their families, and the school staff, by growing well-being, promoting better relationships, dealing with punctual difficulties, and mapping out uncover personal challenges.

This study highlighted the massive challenges the globe is currently facing and the pressing need to answer those challenges, but also the flaws and the gaps existing between knowledge and practice. If a significant amount of study was done to understand what has to be done, additional research is needed to determine how. Therefore, additional research on the use of arts and their potential for transformation in relation to the eco-social crisis may be necessary. For instance, longitudinal studies could be used in the examination of arts-based eco-social pedagogical approach to better understand and observe participants' potential changes over time and assess whether a transformation is possible. This could take the shape of implementing the approach into the primary school's curriculum starting from the first grade with a follow-up of the participants until

school graduation. Additionally, the research should more thoroughly engage the families of the participants and the school personnel (director, psychologist, social worker), through for example surveys and interviews, in order to determine the quality of any potential changes outside of the process and to acquire a deeper and more holistic picture of the effects of the approach.

Furthermore, more research may be done to identify the differences between the effects of the arts-based eco-social approach and those of other types of art engagement in order to comprehend the contributing factors and their effects on the participants, including, for instance, a thorough analysis of qualitative studies in the area of expressive arts therapy. Also, a greater emphasis must be placed in research processes on the value of artistic creation and its capacity to deepen knowledge and understanding, by sometimes revealing knowledge that may arrive in an unexpected way.

Finally, in the midst of this unprecedented sixth mass extinction episode (Boivin, et al., 2016), society must start taking seriously what has been known for a long time. Academia, educational, cultural, and environmental experts must start working together to find sensitive and sensuous ways to transform our way of life into something grounded and harmonious.

At the end of the process, I brought a bag of gemstones. Each got to choose a gem as a present from me, and as present for themselves. The gem represented a seed and what they hope will grow from it. To present it to the class, they had to create artwork from it. The teacher wanted to grow the children of the future, with goodness, love, knowledge, and respect. Here is the teacher's work:

Thank you!

I am grateful for the trust the school, the teacher, the students, and their parents placed in me to carry out this study. I hope I could be loyal to the experiences and discussions which emerged and could transfer them here with empathy and objectiveness.

Through their participation, it was possible to better comprehend a current, hot-button issue about the environmental catastrophe, environmental education, and the place of the arts and culture in all of this, which in turn will enable further studies on the area.

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Appendices

Participant research information sheet/Tutkittavan informointilomake

TIEDOTE TUTKIMUKSESTA

Taidepohjainen ekososiaalinen lähestymistapa alakoulussa:
Miten auttaa tulevia sukupolvia rakentamaan parempaa maailmaa

(Arts-based eco-social pedagogical approach in primary schools' settings: How to help future generations shape a better world?)

Pyyntö osallistua tutkimukseen

Pyydän sinua (koulu/opettaja/oppilas) osallistumaan tutkimukseen, jossa tutkitaan taidepohjaisen ekososiaalisen lähestymistavan soveltamista suomalaisessa peruskoulujärjestelmässä vastauksena ekologiseen kriisiin. Tutkimus perustuu ympäristöön liittyviin kasvatustavoitteisiin, jotka on asetettu valtakunnallisen opetussuunnitelman perusteissa. Tutkimus on osa maisteriopintojani Metropolia Ammattikorkeakoulussa Luovuus ja taide sosiaali- ja terveysaloilla -tutkinto-ohjelmassa. Olen taideterapeutti, kuvataiteilija (AMK) ja työskennellyt taidepohjaisen ekososiaalipedagogisen lähestymistavan kehittämisessä vuodesta 2012 lähtien useissa Päijät-Hämeen alakouluissa. Tutkin maisteriopintojeni puitteissa ekososiaalisuuteen keskittyvää pedagogista menetelmää. Kyseinen koulu valittiin osallistujaksi tutkimukseen siksi, että on minulle entuudestaan tuttu. Luokka, joka osallistuu tutkimukseen, valittiin yhteistyössä koulun rehtorin ja opettajien kanssa. Tämä tiedote kuvaa tutkimusta ja teidän osuuttanne siinä. Perehdyttyänne tiedotteeseen teiltä pyydetään suostumus tutkimukseen osallistumiseen.

Vapaaehtoisuus

Tutkimukseen osallistuminen on täysin vapaaehtoista. Voit vetäytyä tutkimuksesta milloin tahansa syytä ilmoittamatta ja ilman kielteisiä seurauksia. Koska tutkimus tapahtuu koulupäivän aikana luokkahuoneessa, sinulta ei enää kerätä aineistoa, jos vetäydyt tutkimuksesta. Voit vetäytymisestä huolimatta osallistua tunnille. Mikäli keskeytätte tutkimuksen tai peruutatte suostumuksen, keskeyttämiseen ja suostumuksen peruuttamiseen mennessä kerättyä aineistoa voidaan käyttää osana tutkimusta.

Tutkimuksen tarkoitus

Tämän tutkimuksen tarkoituksena on tarkastella taidepohjaisen ekososiaalisen lähestymistavan soveltamista suomalaisessa peruskoulujärjestelmässä vastauksena ekologiseen kriisiin. Tutkimus perustuu ympäristöön liittyviin kasvatustavoitteisiin, jotka on asetettu valtakunnallisen opetussuunnitelman perusteissa.

Tutkimuksen toteuttajat

Metropolia Ammattikorkeakoulu toimii tutkimuksen suorituspaikkana. Kukaan ei rahoita tutkimusta.

Tutkimusmenetelmät ja toimenpiteet

Tutkimus tapahtuu koulupäivän aikana, osallistujien omassa luokkahuoneessa ja osallistujien oman opettajan kanssa. Toimin projektissa ohjaajana ja tutkijana. Tapaamme osallistujien kanssa kerran viikossa 1,5-2 tuntia kerrallaan kuuden (6) viikon prosessin ajan keväällä 2022. Osallistujat osallistuvat luontoa ja ympäristöä käsittelevään projektiin, jossa käytetään luovia menetelmiä, kuten maalausta, piirtämistä, kollaaseja, savea ja leikkimistä. Osallistujat jakavat kokemuksiaan muun ryhmän kanssa keskustellen. Prosessi tapahtuu hyväksyvässä ympäristössä.
Tutkimuksen aikana ei kerätä tarpeettomia tietoja. Aineisto kerätään havainnoimalla. Osallistujilta kerätään seuraavia tietoja: sosiaalista vuorovaikutusta ja käyttäytymistä projektin aikana, keskusteluja ja suoria lainauksia puheesta, kertomuksia projektin aikana heränneistä ajatuksista ja tunteista, ikä ja luokka-aste, kuvia tutkimuksen aikana syntyneistä taideteoksista.

Tutkimuksen mahdolliset hyödyt

Vastaaviin projekteihin aiemmin osallistuneet oppilaat ovat antaneet myönteistä palautetta. Osallistujien palautteisiin on kuulunut esimerkiksi se, että mielikuvituksen ja luovuuden käyttäminen oli hauskaa ja voimaannuttavaa ja muiden kanssa toimiminen paransi ryhmädynamiikkaa.

Tutkimuksesta mahdollisesti seuraavat haitat ja epämukavuudet

Tutkimukseen osallistumiseen ei liity merkittäviä riskejä tai haittoja. On mahdollista, että oppilaiden välillä ilmenee ristiriitoja. Jos näin tapahtuisi, tilanne huomioon koko ryhmässä. Prosessin alussa luodaan turvalliset puitteet, jotta oppilaat tuntevat olevansa hyväksyttyjä osana ryhmää. Ryhmä aloittaa projektin laatimalla yhteiset säännöt, joihin kuuluu kuten kaikkien näkemysten kunnioittaminen. Opiskeluympäristö on osallistujille tuttu luokkahuone tavallisen koulupäivän aikana, opettaja on paikalla, eikä vaarallisia materiaaleja käytetä. Jos tutkimuksen aikana sattuisi tapaturma, käytetään koulun protokollaa.

Kustannukset ja niiden korvaaminen

Tutkimukseen osallistuminen ei maksa sinulle mitään. Osallistumisesta ei myöskään makseta korvausta.

Tutkimustuloksista tiedottaminen

Kysymyksessä on Ylempi AMK opinnäytetyö, joka julkaistaan avoimesti Theseus-tietokannassa. Opinnäytetyön
kieli on englanti. Osallistujia eivät tule tunnistettua mistään julkisesti julkaistusta raportista tai julkaisusta.

Tutkimuksen päättyminen

Tutkimuksen suorittava tutkija voi keskeyttää tutkimuksen, jos se on osallistujien edun mukaista. Pandemia voi vaikuttaa tutkimuksen kulkuun. Tutkija ja koulu noudattavat viranomaisten antamia pandemiaohjeistuksia.

Lisätiedot

Pyydän sinua tarvittaessa esittämään tutkimukseen liittyviä kysymyksiä opinnäytetyön tekijälle tai opinnäytetyön ohjaajalle.

Tutkijan yhteystiedot

Opinnäytetyöntekijä
Nimi: TAINA DE CARVALHO
Puh
Sähköposti:

Opinnäytetyön ohjaaja
Nimi: SANNA KIVIJÄRVI, MuT, KM
Korkeakoulu / yksikkö: Metropolia Ammattikorkeakoulu
Sähköposti:

Tutkimuksen tietosuojaseloste: Henkilötietojen käsittely tutkimuksessa

Tässä tutkimuksessa käsitellään teitä koskevia henkilötietoja voimassa olevan tietosuojalainsäädännön (EU:n yleinen tietosuoja-astus, 679/2016, ja voimassa oleva kansallinen lainsäädäntö) mukaisesti. Seuraavassa kuvataan henkilötietojen käsittelyyn liittyvät asiat.

Tutkimuksen rekisterinpitäjä
Rekisterinpitäjällä tarkoitetaan tahoa, joka yksin tai yhdessä toisten kanssa määrittelee henkilötietojen käsittelyn tarkoitukset ja keinot. Rekisterinpitäjä voi olla korkeakoulu, toimeksiantaja, muu yhteistyötaho, opinnäytetyöntekijä tai jotkut edellä mainituista yhdessä (esim. korkeakoulu ja opinnäytetyöntekijä yhdessä).

Tässä tutkimuksessa henkilötietojen rekisterinpitäjä ovat:

Korkeakoulu ☐

Opinnäytetyöntekijä ☐

Yhteisrekisterinpitäjien vastuut [tarvittaessa]

Taina de Carvalho vastaa henkilötietojen säilytysajasta ja poistaa ne, kun säilytysaika on umpeutunut.
De Carvalho päättää henkilötietojen käsittelyssä käytettävistä työvälineistä (ohjelmistot) ja niiden tietoturvasta ja tutkimukseen osallistuvien henkilöiden informoinnista.

Voitte kysyä lisätietoja henkilötietojenne käsittelystä rekisteripitäjän yhteyshenkilöltä

Rekisterinpitäjän yhteyshenkilön nimi: TAINA DE CARVALHO
Organisaatio: Metropolia Ammattikorkeakoulu
Puh. ███████
Sähköposti: ████████████

Tutkimuksessa kerätään seuraavia henkilötietoja

Seuraavien henkilötietojen käsittely on oikeutettua ainoastaan silloin kun se on tutkimukselle välttämätöntä. Kerättävät henkilötiedot minimoidaan, niitä ei kerätä tarpeettomasti tai varmuuden vuoksi. Sinulla ei ole sopimukseen tai lakisääteiseen tehtävään perustuvaa velvollisuutta toimittaa henkilötietoja vaan osallistuminen on täysin vapaaehtoista.

Osallistujilta kerätään seuraavia tietoja: sosiaalista vuorovaikutusta ja käyttäytymistä projektin aikana, keskusteluja ja suoria lainauksia puheesta, kertomuksia projektin aikana heränneistä ajatuksista ja tunteista, ikä ja luokka-aste, kuvia tutkimuksen aikana syntyneistä taideteoksista.

Tutkimuksessa ei mainita sen nimeä tai missä kaupungissa koulu sijaitsee. Ainoastaan koulun maantieteellinen sijainti (Etelä-Suomi) mainitaan.

Tutkimuksessa kerätään henkilötietojanne myös seuraavista lähteistä

Tietoja kerätään myös haastattelemalla luokan opettajaa, joka osallistuu prosessiin. Opettaja mainitaan tutkimuksessa opettajana ja mikä luokka hän opettaa. Ikää, sukupuolta, tai henkilökohtaisia tietoja, joka voi tehdä hänestä tunnistettavan ei mainita.

Henkilötietojenne suojausperiaatteet

Eri työvälineitä on käytössäni kerätessäni henkilötietoja. Omat muistipanot pidän lukittuna kaapissa. Käytän Metropolia Ammattikorkeakoulun turvallista sähköpostijärjestelmää ja verkkolevyasemaa jossa äänentallennus ja muu kerätty tieto säilytetään.

Henkilötietojenne käsittelyn tarkoitus

Aineistoa käsitellään ja kerätään, jotta ymmärrettäisiin osallistujien muutoksia ja kokemuksia tutkimuksen aikana ja ymmärrettäisiin paremmin taidepohjainen ekososiaalinen lähestymistavan vaikutuksia suhteessa tutkimuskysymykseen.

Henkilötietojenne käsittelyperuste

Oikeusperustana on rekisteröidyn antama suostumus. Sinulla on oikeus peruuttaa suostumus milloin tahansa tässä tietosuojaselosteessa kuvatulla tavalla.

Tutkimuksen kestoaika (henkilötietojenne käsittelyaika)

Kenttätyö osallistujien kanssa kestää kuusi (6) viikkoa. Tämän jälkeen kerätyt materiaalit käsitellään ja koodataan. Sen jälkeen analysoin dataa, jonka perusteella tehdyt tulokset ja päätelmät esitän opinnäytetyössä. Opinnäytetyö on valmis viimeistään joulukuussa 2022.

Mitä henkilötiedoillenne tapahtuu tutkimuksen päätyttyä?

Tiedot tuhotaan.

Henkilötietojenne mahdollinen siirto EU:n tai ETA-alueen ulkopuolelle

Tietojanne ei siirretä EU:n tai ETA-alueen ulkopuolelle.

Rekisteröitynä teillä on oikeus

Koska henkilötietojanne käsitellään tässä tutkimuksessa, niin olette rekisteröity tutkimuksen aikana muodostuvassa väliaikaisessa henkilörekisterissä. Rekisteröitynä teillä on oikeus:

- saada informaatiota henkilötietojen käsittelystä
- tarkastaa itseänne koskevat tiedot
- oikaista tietojanne
- poistaa tietonne (esim. jos peruutatte antamanne suostumuksen)
- peruuttaa antamanne henkilötietojen käsittelyä koskeva suostumus
- rajoittaa tietojenne käsittelyä
- rekisterinpitäjän ilmoitusvelvollisuus henkilötietojen oikaisusta, poistosta tai käsittelyn rajoittamisesta
- siirtää tietonne järjestelmästä toiseen
- sallia automaattinen päätöksenteko nimenomaisella suostumuksellanne
- tehdä valitus tietosuojavaltuutetun toimistoon, jos katsotte, että henkilötietojanne on käsitelty tietosuojalainsäädännön vastaisesti

Jos henkilötietojen käsittely tutkimuksessa ei edellytä rekisteröidyn tunnistamista ilman lisätietoja eikä rekisterinpitäjä pysty tunnistamaan rekisteröityä, niin oikeutta tietojen tarkastamiseen, oikaisuun, poistoon, käsittelyn rajoittamiseen, ilmoitusvelvollisuuteen ja siirtämiseen ei sovelleta.

Voitte käyttää oikeuksianne ottamalla yhteyttä rekisterinpitäjään.

Tutkimuksessa kerättyjä henkilötietoja ei käytetä profilointiin tai automaattiseen päätöksentekoon

Henkilötietojen käsittely aineistoa analysoitaessa ja tutkimuksen tuloksia raportoitaessa

Sinusta kerättyä tietoa ja tutkimusaineistoa käsitellään luottamuksellisesti lainsäädännön edellyttämällä tavalla. Yksittäisille tutkittavalle annetaan tunnuskoodi ja häntä koskevat tiedot säilytetään koodattuina tutkimusaineistossa. Aineisto analysoidaan koodattuna ja tulokset raportoidaan ryhmätasolla, jolloin yksittäinen henkilö ei ole tunnistettavissa ilman koodiavainta. Koodiavainta, jonka avulla yksittäisen tutkittavan tiedot ja tulokset voidaan tunnistaa, säilyttää opinnäytetyöntekijä Taina de Carvalho eikä tietoja anneta tutkimuksen ulkopuolisille henkilöille. Tutkimusaineistoa ja tutkimuksen yhteydessä kerättyjä tietoja säilytetään vuoden ajan, jonka jälkeen ne hävitetään aineistojen litteroinnin, anonymisoinnin / pseydonymisoinnin ja analysoinnin jälkeen silppuamalla se DIN 32757 turvaluokan 3-4 asiakirjatuhoojalla. Siihen asti rekisteriä säilytetään lukollisessa kaapissa, jonka avain on ainoastaan tutkijan hallussa. Tutkimusaineistona toimivat materiaalit muutetaan litteroinnin jälkeen tunnisteettomiksi. Kerättyjä tietoja ei käytetä muihin tutkimuksiin eikä muilla henkilöillä ole pääsyä aineistoon.

Participant research consent sheet/ Tutkittavan suostumus

Tutkimuksen nimi:
Taidepohjainen ekososiaalinen lähestymistapa alakoulussa: Miten auttaa tulevia sukupolvia
rakentamaan parempaa maailmaa
(Arts-based eco-social pedagogical approach in primary schools' settings: How to help future
generations shape a better world?)

Tutkimuksen toteuttaja:
Korkeakoulu: Metropolia Ammattikorkeakoulu

Tutkijan yhteystiedot
Nimi: TAINA DE CARVALHO
Puh
Sähköposti:

Opinnäytetyön ohjaaja
Nimi: SANNA KIVIJÄRVI, MuT, KM
Korkeakoulu / yksikkö: Metropolia Ammattikorkeakoulu
Sähköposti:

Minua   on pyydetty osallistumaan yllä mainittuun
tutkimukseen, jossa tutkitaan taidepohjaisen ekososiaalisen lähestymistavan soveltamista
suomalaisessa peruskoulujärjestelmässä vastauksena ekologiseen kriisiin. Tutkimus perustuu
ympäristöön liittyviin kasvatustavoitteisiin, jotka on asetettu valtakunnallisen
opetussuunnitelman perusteissa.

Olen saanut tiedotteen tutkimuksesta ja ymmärtänyt sen. Tiedotteesta olen saanut riittävän
selvityksen tutkimuksesta, sen tarkoituksesta ja toteutuksesta, oikeuksistani sekä tutkimuksen

mahdollisesti liittyvistä hyödyistä ja riskeistä. Minulla on ollut mahdollisuus esittää kysymyksiä ja olen saanut riittävän vastauksen kaikkiin tutkimusta koskeviin kysymyksiini.

Olen saanut tiedot tutkimukseen mahdollisesti liittyvästä henkilötietojen keräämisestä, käsittelystä ja luovuttamisesta ja minun on ollut mahdollista tutustua tutkimuksen tietosuojaselosteeseen.

Osallistun tutkimukseen vapaaehtoisesti. Minua ei ole painostettu eikä houkuteltu osallistumaan tutkimukseen.

Minulla on ollut riittävästi aikaa harkita osallistumistani tutkimukseen.

Ymmärrän, että osallistumiseni on vapaaehtoista ja että voin peruuttaa tämän suostumukseni koska tahansa syytä ilmoittamatta. Olen tietoinen siitä, että mikäli keskeytän tutkimuksen tai peruutan suostumuksen, minusta keskeyttämiseen ja suostumuksen peruuttamiseen mennessä kerättyjä tietoja ja näytteitä voidaan käyttää osana tutkimusaineistoa.

Allekirjoituksellani vahvistan osallistumiseni tähän tutkimukseen.

Jos tutkimukseen liittyvien henkilötietojen käsittelyperusteena on suostumus, vahvistan allekirjoituksellani suostumukseni myös henkilötietojeni käsittelyyn. Minulla on oikeus peruuttaa suostumukseni tietosuojaselosteessa kuvatulla tavalla.

_____, ____ . ____. _____

Allekirjoitus: _____

Nimenselvennys: _____

Alkuperäinen allekirjoitettu tutkittavan suostumus sekä kopio tutkimustiedotteesta liitteineen jäävät tutkijan arkistoon. Tutkimustiedote liitteineen ja kopio allekirjoitetusta suostumuksesta annetaan tutkittavalle.

Äänentallennus suostumus:

Tutkimuksen aikana tutkija pyytää lupaa teiltä tallentaa ääntä. Äänentallennuksen tarkoitus on auttaa tutkijaa muistamaan mitä tutkimuksen aikana on tapahtunut, jotta tietokeräys olisi tarkka. Tallennusta ei siis käytetä missään muussa tarkoituksessa, kun tutkijan omaan käyttöön. Tallennukset säilytetään tutkimuksen aikana Metropolia Ammattikorkeakoulun verkkolevyasemalla ja tuhotaan tutkimuksen päätyttäessä.

☐ Annan suostumuksen äänentallennukseen.

Teacher's open questions interview

The following questions were asked to the teacher during an open discussion. Some of the questions were intended to be asked and were planned in advance, while others were asked to elicit more detailed responses. Overall, the natural flow of the discussion was respected, and the teacher was able to answer freely.

1: Can you describe your work as a teacher?
2: Can you describe your class?
3: What kind of challenges have you been faced with?
4: In which way this class has been more challenging than previous classes you had?

- What do you mean when you say that the students are not motivated?

6: What do you think about Environmental Education?
7: How is Environmental Education being fulfilled in your class?
8: How do you think that Environmental Education should be fulfilled?

- Can it happen inside a classroom?

9: Did you get support and education to fulfill Environmental Education?
10: What should be the content of it?
11: What do you think about our process?
12: How do you think that your students approached the process?
13: How do you think it affected them?
14: How do you think this kind of work could be part of the school daily life?
15: Would you have some feedback to give? Some final comments?

Exercises' examples

1: Warm-up exercise with game:

This easy to implement exercise is designed when starting with a new group. It helps to break the ice, while giving a good feeling to the participants about the newly arrived facilitator and gives the facilitator a good overview of the group and its dynamics. This exercise can be implemented and adjusted with any age group.
Features: Joyful, playful, inclusive, creative, bodily

- In a circle, we all stand. The facilitator says that he/she didn't arrive empty handed, but with a ball (invisible one). This moment can be done playfully to make participant laugh, a bit like a clownery sketch. I said that I brought the ball all the way from France, from Paris. "Can't you see it?"

- The ball is then sent to one participant, who in turn will send it to another participant and so on…An eye contact must be taken to send the invisible ball, so the participant knows for sure the ball is sent to him/her. Everyone should get the ball at least once. It is possible then to make the ball smaller, heavier, bigger…or to add another ball, which adds to the challenge. It is also interesting to add the name of the person to whom the ball is sent.

- Next, we create our common ball, where everyone can give it a feature of their own choice. The coach starts by passing the ball to the next participant and says for example, "glimmery". The participant adds a feature and passes it on. Example, "glimmery", "small", "with dots", "heavy" and so on.

- At the end, we try to remember how our common ball is.

- The participants had to be attentive to one another. A contact is taken.
  Everyone is equally included. It is fun. It is not highly demanding from
  participants. Even shy ones can take part and be involved as they wish.

2: Warm-up exercise with nature related words

This exercise is concretely guiding towards the work, as what will be done
during this warm-up will be used for the creative working phase. This exercise
calls for more sensibility and personal involvement from the participants, which
must be considered by the facilitator.
Features: Imagination, memory, personal, meaningfulness, senses, relaxation,
emotions, sharing

- Relaxing ambient neutral music is played in the background, intended to
  create a relaxing atmosphere, and ease the focus of the participants.

- Pieces of paper are displayed around the classroom, where on each, a
  word related to nature is written on. Those words may be more general
  such as warmth, colors and sent or more precise such as cottage, flower,
  and frog.

- Participants are invited to walk quietly and slowly around the classroom
  and stop in front of the words. They were previously instructed to be
  open while reading the word and let emerge thoughts, memories,
  feelings, stories related to the words.

- Finally, they are asked to choose a word and take a meditative moment
  reflecting on the word. What comes to mind? Memories? Thoughts?
  sensations? Emotions? Stories?

- With a pair, or small group depending on the size of the whole group, the
  participant may share its own experiences with the other participant,
  which is invited to ask questions as well.

- Based on the discussion and sharing moment, the participants will be
  invited for the creative working phase.

- This exercise is very holistic and calls for much sensitivity and sensibility. However, the participants can participate as they want, and share exactly what they want with their peers. The work is concrete and intimate to the participant.

3: Whole session example (in a nutshell):

When starting with a new group, this session gives a good overview of how the participants are responding to the creative working, and about the group dynamic and their collaborative and imaginative skills. It thus suits very well, when starting with a new group, as a first or second session. Furthermore, it is not too demanding of the participants.

- Warm-up:
    - Participants are invited to choose their personal color of the day, and take a chalk of that color, plus a second one of free choice of color. They are invited to present for the rest of the group what is the color of their day.
    - Around a large piece of paper, the whole group gathers and is invited to draw as they want while rhythmic drumming music is playing. They may experiment using both hands at once, make big movements or smaller ones, close their eyes while drawing. The only technical guideline is that no words are allowed to be written.
    - When the participants hear my Tingsha bell ringing, they know they must go forward around the paper and take the place of the next participants. They may continue drawing freely. And so the exercise goes on all around the paper.
    - At the end, we look at the work that has been co-created and reflect on the process.

- Working:
  - They may choose something interesting to their eye from the freshly created common work (a line, a form, a color…), and cut it of the paper.
  - With small group, they will share why they choose the particular piece, and they are invited to make a common collage out of each participants pieces of paper and continue the picture with paints and drawings.

- Showing:
  - The works are presented to the rest of the group as storytelling. If the space and materials allow for it, the participants may stage the presentation and add elements to it (sound, effects…).

- Sharing:
  - The audience may comment on the presentation without judgments (what came to their mind, how did they feel…), or give the aesthetic response to the work. Questions may be asked, so a start of conversation can be initiated.

- Ending:
  - The whole group cleans the space, and we come back to the circle of sitting pillows. Everyone is invited one at a time to say something about the process, and how do they feel now. It can also be just one word.
  - Ritual of closing the session and thank you.