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"Dancing with the land"

Perspectives on teaching and learning with the land in Nordic education

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This thesis is worth 30 study points

Summary

This master thesis aims to explore a land-responsive educational approach that combines traditional and modern knowledge within a Nordic context. From the perspective of teacher educators, the research project focuses on ways of learning and teaching with and in the land. The role of the land and the didactic challenges are particularly important. This research is thus a response to the increasing demand for innovative teaching and learning approaches to promote human-land relationships and to develop more sustainable behavior in the face of the ongoing climate crisis. This qualitative study is part of an action research project within the international research project “Learning with the Land”. The data was collected through four individual semi-structured interviews, two focus group meetings and participant observation. The findings suggest a holistic understanding of the land, moving beyond material aspects. Furthermore, the land is seen as one of many actors within a network of actors. In that sense, the land embodies the role of a teacher in land-responsive education. Since land-responsive education challenges the anthropocentric view and the idea is to combine traditional and modern knowledge, this approach is facing many challenges while attempting to implement it in formal education. As this work only provides suggestions for implementation, further research is needed, to put it into practice and evaluate it.

Contents

1 Introduction

Climate change pressures global society towards change. Even if knowledge and modern technologies are used to try to solve these problems, our relationship with nature is the basic prerequisite for creating ecological behavior. In the Anthropocene, however, humans have increasingly distanced themselves from nature, and the dichotomy between humans and nature is extremely pronounced. (Beery et al., 2023). Beery et al. (2023) point out, that “cultural factors, such as norms, values, beliefs and expressive symbols of culture” (p. 476) play a major role and both produce and reproduce this phenomenon of disconnection from nature. There is no one right answer to climate change (Norman et al., 2020; Wildcat, 2013), but scholars see education as a key role in facing these challenges (Aikens, 2021; Clugston & Corcoran, 2023; Corcoran, 2004b). As Corcoran (2004b) states, “Education, with its powerful concentration of intellectual resources and privileged position in society, has a leadership role, indeed a moral responsibility, to seek ethical and practical answers to the economic, social, and environmental problems” (p.110).

New approaches to outdoor education, in both formal and informal educational settings, are gaining interest as a way to reconnect people with nature and thus promote education for sustainable development (Keskitalo, 2023). However, ecological peace presupposes social peace, which must be taken into account in education for sustainable development and a culture of peace (Clugston & Corcoran, 2023). Teaching land-based practices is one response to teachings about a more-than-human ethic (Norman et al., 2020). It offers a holistic approach to learning, that incorporates not only physical and cognitive but also spiritual and emotional elements (Streit & Mason, 2017) by acknowledging multiple ways of knowing (Yan, 2023). It questions the Western view of teaching and learning, whereby the role of the teacher must also be reconsidered.

With my master's thesis project, I would like to contribute to the discourse on innovative teaching and learning in formal education, addressing the current challenges in times of climate and environmental crisis by questioning Western perspectives and opening up new perspectives for teaching and learning. In the following sections of this introduction, I will explain my motivation and professional background, which is part of my position as a researcher. I will then give a brief introduction to the international research project “Learning with the Land” to which I am contributing with my work. Finally, I will outline my research problem and give an overview of this thesis.

1.1 Motivation

Nature and outdoor life in various forms have always been part of my life and have become increasingly important to me over time. This has led me to want to pass on this joy and connection with nature, which for me is linked to a strong sense of sustainability. My motivation is to bring people closer to nature, to show them how beautiful and valuable our natural resources are and what we need to protect. That's why I became a professional outdoor educator with Outward Bound and similar companies looking for ways to connect and inspire people more with nature. I quickly realized, that especially in traditional experiential education, as embodied by Outward Bound, nature is primarily used as a means to an end for social processes, group processes, and so-called personality development. Here, nature is the backdrop for activities. In recent years, small steps have slowly been taken to sensitize course participants more to the environment. But I wanted to know more, to experience other approaches and perspectives of working with and in nature in an educational environment that puts nature at the center. This is how I came to study the Nordic Master in Friluftsliv, where more and more questions arose. What is nature? How are we connected with nature? How can we learn from nature? I was made aware of the international research project “Learning with the Land”, which I will introduce below. It made me curious to find answers to my questions there.

1.2 Learning with the Land – The research project

“Learning with the Land” is an international research project that brings together art educators and art-based researchers from Canada, Australia and Norway. With their work, they are moving towards innovative teaching and learning practices to decolonize educational and research practices by challenging the Western understanding of land and therefore enhancing a reciprocal understanding of teaching and learning with the land. At the same time, they are taking action to tackle the climate crisis by incorporating science, local and Indigenous knowledge. In their research, they apply “a/r/tography” (Irwin, 2013) as an approach, to combine the different perspectives of artists, researchers and teachers to develop innovative and transformative ways of artistic, pedagogical and research practice. As part of my master's thesis, I will take the Norwegian perspective of the research project and will thus contribute to it.

1.3 Problem statement

In the context of the international research project “Learning with the Land”, this paper aims to better understand the pedagogical and educational aspects of teaching and learning with and in the land, taking into account both traditional Indigenous perspectives and modern forms of knowledge and learning. As it is a responsibility and a challenge for the teacher to put into practice a land-responsive pedagogical approach while acknowledging Indigenous and modern ways of knowing, I explore the teacher's perspective in this context. Therefore, my research is guided by the following question and its sub-questions:

What does teaching and learning in and with the land entail to develop a land-responsive education?

a. What role does the land play in teaching and learning in a land-responsive education?
b. What are the didactical challenges in a land-responsive education?

To answer my research questions, I will first provide a literature review of relevant theories and perspectives on this topic in Chapter 2. The study is based on semi-structured individual interviews, focus group meetings and participant observation. Therefore, in Chapter 3, I present the research design I chose, how I collected my data, and how I subsequently analyzed it. I also discuss my ethical considerations, the verification of the data and the limitations of the study. I then present my findings in Chapter 4, which I discuss in Chapter 5 in relation to the relevant literature and theoretical assumptions. Finally, a conclusion in Chapter 6 completes my thesis.

2 Theories & Perspectives

This Chapter outlines the field of research to which this thesis contributes. It also provides the theoretical background for my work and the foundation on which my data analysis and interpretation are based.

2.1 From place- to land-based education

For the further understanding of this thesis, it is crucial to understand what is meant by “land” in the context of land-responsive education and learning with the land. Therefore, I will first explain the concept of “place” and then go beyond this and attempt to define the term “land” by also showing the differences to place. I will then dive deeper into the educational aspects of land-based pedagogies, as they are outlined in the academic literature.

2.1.1 Place and place-based education

The term “place” is associated with a specific geographical location, a local environment, to which people develop an attachment. In this sense, places influence people and vice versa (Wattchow & Brown, 2011b). Within a place, people find meaning through the specific landscape, activities, cultural and social context (O’Connor, 2020). This creates both an imaginary and a physical level of reality of place that influence each other (Wattchow & Brown, 2011b).

Just as place is anchored in the context of the natural and social community, so is place-based education. Thus, place-based education is specific in its content, which is linked to its unique place that encompasses all the components that make up a place (O’Connor, 2020). Even the fact that a place is inextricably linked to its natural environment, its geography and its ecology is often not the focus of place-based education programs. Rather, man-made issues in the social and political sense that create problems in the affected community are at the center of interest. In this respect, it is a valuable approach to reintroduce students to local issues that matter to them, rather than global issues or issues that do not matter to them directly (Styres et al., 2013). However, the aim of place-based education is primarily to familiarise students with places, to provide culturally relevant content and ultimately to build a connection with place (Gruenewald, 2003). Connecting with and appreciating the natural world is only one possible outcome, but not necessarily the main focus (Styres et al., 2013). Nevertheless, a place-based pedagogical approach is also gaining increasing attention in the school sector to educate for an ecologically sustainable future (Mikaels, 2018).

Some critics, however, have labeled the place-based approach quite bluntly as Western education that is held outside (Bowra et al., 2021). The criticism is that the understanding of place corresponds to a colonial logic that is aimed at a settler future (Scully, 2020) and thus the colonial legacies are not questioned in the context of place-based education, which also resonates immediately (Calderon, 2014). Another point of criticism is that land is missing as a central element in place-based education (Scully, 2020). The assumption of the concept of place includes the land, because place exists on the land and thus, learning from place implies a relationship to the land (Styres et al., 2013). However, this is not thematized in place-based education. For Indigenous peoples, however, the relationship to the land is taken for granted and is highly valued (O'Connor, 2020). There are variations of place-based education in the literature that attempt to unite these two perspectives and integrate them into a Western system, such as Indigenous place-based education (Bocko et al., 2023). Nevertheless, this seems confusing and inconsistent if the colonially coined term "place" is still used.

2.1.2 From place-based to place-responsive education

In recent years, place-based education has evolved into place-responsive education that follows the current needs and trends of society, concerning the social and environmental pressures of climate change. The focus here is on education for a sustainable relationship between humans and nature, taking into account the cultural, historical and ecological aspects of the land (Baker, 2005; Mannion et al., 2013; Mikaels, 2018; Stewart, 2004; Wattchow & Brown, 2011a). Furthermore, for Cameron (2002), responsiveness means acting, reacting and being sensitive to something. Learning from natural and cultural history and stories can be a practical approach. Teaching and learning still relate to the local context and should be taught in an interdisciplinary way in formal education (Mikaels, 2018). In the literature, place-responsive education is increasingly viewed from a relational materialist perspective that challenges the anthropocentric view and thereby decentres the human. (Hultman & Lenz Taguchi, 2010; Mikaels, 2019).

2.1.3 Land and land-based education

In contrast to “place”, “land” transcends a specific geographical space (Styres, 2011). Scholars describe it as “a physical and spiritual entity” (Kuokkanen, 2005, p. 24), which includes “spiritual, emotional and intellectual aspects” (Styres et al., 2013, p. 37), as “it is also a dynamic, organically fluid and relational place” (Styres, 2011, p. 722). In practical terms, it embodies the elements, such as water, earth and air, which interact with each other and are therefore constantly changing (Styres et al., 2013). The relationship between land and people is reciprocal (Kimmerer, 2011; Norman et al., 2020), which is visible in the way land informs and is informed by stories, practices and pedagogies. The relationship to land matters regardless of a rural or urban context. From an Indigenous perspective, the land as a living being is seen as the keeper of knowledge about life and death. It has its own language through which it constantly communicates and teaches. However, colonial powers have and still are transforming land and the understanding of land into an image of territory occupied by humans, that they want to control and profit from (Styres et al., 2013).

Therefore, land-based education is a holistic approach that acknowledges multiple ways of knowing nature (Yan, 2023) and builds on meaningful relationships and practical activities through which knowledge is created (Desmoulins et al., 2023). These reciprocal relationships are built through conversations with and on the land on a physical, social and spiritual level (Wildcat et al., 2014). It thus challenges Western perspectives by combining ideas of land, nature, environment and culture (Yan, 2023) and recognizing physical, cognitive, spiritual and emotional elements of learning rather than separating or neglecting them (Streit & Mason, 2017). The interconnectedness and interdependence of relationships are given central importance (Styres, 2011). Consequently, a deep connection with the land is sought at various levels, both with the natural world, community members and local and cultural practices (Streit & Mason, 2017). In this way, this educational approach is inclusive, respects diversity and is also an example of transformative learning (Peden & Wallin, 2020).

2.1.4 Teaching and who is the teacher?

Land-based education also challenges Western teaching methods. There is no teaching in categories and no following the “producer–consumer paradigm” to increase the effectiveness of communication (Skuce & Pelech, 2020). Instead, there is a uniqueness in each encounter that strips traditional Western teaching strategies of their predictability due to their unrepeatability (Skuce & Pelech, 2020). Rather, the role of the educator is to provide learning opportunities for students by preparing them for activities on and with the land and reflecting on them afterward (Desmoulins et al., 2023; Streit & Mason, 2017). It is the teacher's responsibility to give students time until they are ready and not to force anything (Skuce & Pelech, 2020). Only then there is an environment in which students can open up to the land as their first teacher (Kimmerer, 2013; Norman et al., 2020; Styres, 2011; Wildcat et al., 2014). By accepting the land as the first teacher to inform teaching and learning, it is implied that the land participates, interacts and builds relationships, which means acknowledging that the land has agency (Scully, 2020). Students are encouraged to wonder and question their personal experiences, listen to nature and empathize with it (Yan, 2023).

Typically, land-based practices involve working with the land in close connection to seasonal aspects, for instance, hunting, fishing, picking berries or medical plants and gardening (Norman et al., 2020). Indigenous practices, such as making offerings and ceremonies (Desmoulins et al., 2023), handicrafts, reindeer herding and telling stories (Keskitalo, 2023) are also applied.

2.1.5 Learning outcomes & aims

These practices serve to experience and understand the interconnectedness of all living beings, humans and more-than-humans, and oneself within them. As students build new relationships or deepen old ones, their responsibility towards them also grows (Desmoulins et al., 2023). This leads to more socially just and ecologically responsible behavior and also to preserve Indigenous cultures (Keskitalo, 2023). However, since education in this context is understood as an offer and invitation to the students, there is no end or conclusion to the learning process, but rather it goes beyond this and thus opens up new possibilities and perspectives that could neither have been planned nor imagined beforehand (Skuce & Pelech, 2020).

Desmoulins et al. (2023) summarized activity-based learning from land in five themes:

1) embodied and experiential through shared activities
2) cross-generational, often led by Elders, all learn from one another
3) students learn in relation to land, place and people
4) facilitated by teachers
5) grounded in local stories, protocols, practices and ceremonies

Since the Indigenous perspective on understanding the land, including language and practices, is part of land-based pedagogy (Tuck et al., 2014), I will focus on Indigenous knowledge and relationship to the land from indigenous perspectives in the following Chapter.

2.2 Indigenous knowledge

The term "Indigenous" is a political term that encompasses ethnic minority groups from different nations, communities and languages who all share the experience and struggle of having their territory colonized (Smith, 2021). As I am writing from a Nordic perspective, in this thesis, I refer mainly to the Sámi people who live in Norway, Sweden, Finland and Russia (Skogvang, 2021).

Indigenous knowledge includes both the understanding of knowledge as well as the worldview and the value system (Keskitalo, 2023). It is embedded in communities in which the Elders preserve the knowledge and pass it on from generation to generation (Skogvang, 2021). Knowledge is shaped and informed by the land and embedded in the geographical, historical and spiritual context (Madden, 2015). Indigenous perspectives recognize the more-than-human and its agency (Scully, 2020). Therefore, Indigenous knowledge is characterized by relationships with plants, animals, land and community (Streit & Mason, 2017). Thus, "an understanding of interrelationships, kinship, and of human dependence on and responsibility to the more-than-human" (Scully, 2020, p. 238) is a crucial element of their philosophy.

The Indigenous understanding of land plays a central role (Madden, 2015). As the Sámi are dependent on the land, they see it as their responsibility to look after the land (Sami Parliament Report, 2009). There is a reciprocal relationship between humans and land, where the land is the livelihood for humans and it cares for the humans and the humans also care for the land (Kimmerer, 2013; Larsen & Johnson, 2017; Norman et al., 2020). This goes hand in hand with a sustainable way of life, where decisions are made with seven generations in the future in mind (Styres et al., 2013). In Sámi culture, it is said that if people respect the land and use it sustainably, they preserve the richness of the earth, the so-called “lahi” (Kuokkanen, 2005).

The land is also a constant and always-communicating teacher (Styres et al., 2013). As Kimmerer (2013) states, that plants can tell us stories, we just have to listen. Every place has its own stories and lessons to convey (Larsen & Johnson, 2017). It is a necessity to learn the language of the land by listening, observing and participating (Streit & Mason, 2017). This is the only way to develop a relationship between the people and the land. The Elders translate these stories told by the land into the human language to pass on the knowledge and tell the stories to the next generations (Styres et al., 2013).

So to speak, the Sámi language is also informed by the land (Keskitalo, 2023). Language is the most important component of Indigenous identity (Kuokkanen, 2005). In contrast to Western, noun-centered languages, which are thus classificatory and evaluative, Indigenous languages are verb-centered, i.e. they focus on processes, contexts and transformation (Styres, 2011). It expresses how they relate to the land and each other and encompasses culture and values (Sami Parliament Report, 2009). To understand the Sámi language, you need to know the culture, because it is interwoven. For instance, there are around 300 different words in the Sámi language to describe different types of snow (Meløe, 1988).

Language is used for storytelling, which plays an important role in Indigenous education. It serves not only to pass on land-based knowledge but also to develop and promote an understanding of self and self-reflection (Styres, 2011).

2.3 Indigenous perspectives in a Westernized world

However, it is precisely this land, which is indispensable for Indigenous identity and self-esteem (Streit & Mason, 2017), that has become a battle between Indigenous and non-Indigenous peoples (Peden & Wallin, 2020). Settler colonialism continues in the form of environmental destruction and exploitation, which continues to lead to lost relationships with the land, lost Indigenous knowledge and therefore lost Indigenous identities (Norman et al., 2020).

Also, globalization and modernization have changed Indigenous cultures. For example, most Sámi have ordinary jobs and live a modern life. A lot of knowledge and skills connected to nature have been lost as a result. Neither at school nor in modern families is this knowledge taught. Nowadays, however, there are Sámi festivals for the preservation of Indigenous culture and knowledge, where the Elders impart cultural knowledge in the form of outdoor activities (Skogvang, 2021).

As Indigenous knowledge is still marginalized in general education (Bowra et al., 2021), land-based education can be seen as an act of decolonization of the education system (Wildcat et al., 2014). It draws on Indigenous knowledge and seeks to deconstruct and reconstruct Western assumptions and challenges mainstream education (Madden, 2015). Even though it is an action of settlers fighting for Indigenous land and culture (Scully, 2020), it is important to realize that one must not create another neo-colonial project (Poland et al., 2020). As foreigners of a land, the settlers do not understand the language of the land in the same way as the Indigenous population (Meløe, 1988). Therefore, cooperation, collaboration and attentive listening are required to simultaneously address the needs of the Indigenous population (Streit & Mason, 2017) and the challenges of the non-Indigenous population in land-based education (O'Connor, 2020). Teacher education is the first step in initiating systemic and structural change toward a decolonization process and reshaping notions of education (Madden, 2015).

But this would require overcoming large parts of the Western worldview, which is very much shaped by colonial powers and an anthropocentric perspective. So far, Western scientific knowledge was the only accepted way of knowing, which did not recognize other views. At the center of this is the human being, to whom everything else is subordinate (Yan, 2023). The Western understanding of nature is therefore in contrast to Indigenous perspectives. From a Western perspective, humans are seen as separate from nature, whereas according to Indigenous perspectives, humans and nature are one and mutually dependent (Bowra et al., 2021). In addition, the language on both sides represents a further obstacle to bringing the two ways of knowledge together (Eira et al., 2013).

Thinking further in today's socio-political context in a world of ecological and climate crisis, there is a need to overcome anthropocentrism and promote new relationships between humans and more-than-humans also in an educational setting (Hultman & Lenz Taguchi, 2010; Mannion et al., 2013; Mikaels, 2019; Stewart, 2004; Wattchow & Brown, 2011a). Indigenous perspectives can be of help here, as they already embody this understanding (Norman et al., 2020). Through the relationship they have with nature, scholars see this traditional knowledge as a source of knowledge for sustainable solutions on how to deal with natural resources (Eira et al., 2013). In the fight against the climate crisis, the Western world is focussing primarily on developing new technologies. Indigenous cultures, on the other hand, take a more holistic perspective that also looks at the underlying causes (Sami Parliament Report, 2009). By bringing both knowledge systems together and sharing their information, the modern technological understanding on the one hand and the traditional, more holistic and sustainable worldview on the other would benefit from each other and greatly enrich the further development towards a sustainable future for all life (Eira et al., 2013; Norman et al., 2020).

2.4 A/r/tography

I will give a brief introduction to "a/r/tography" as a methodology, which is another theoretical perspective on learning in and with the land. "A/r/tography" is "a research inquiry, a pedagogical strategy, and a creative activity" (Irwin, 2013, p. 201). To participate in an "a/r/tographic" investigation is to participate in an ongoing and omnipresent process of awareness. The self is thus realized by being an artist, researcher and teacher at the same time. In this way, boundaries become fluid. This approach recognizes the complexity of life and makes it possible to perceive things differently (LeBlanc et al., 2015). It is an approach to create meaning differently. The international research project "Learning with the Land" uses "a/r/tography", Indigenous methods and traditional Indigenous knowledge in a complementary way to create an environment for a reciprocal understanding of teaching and learning with the land.
For this thesis, I consider a/r/tographic learning as a modern way of knowing that comes with openness and yet contributes a different academic, formal perspective to my inquiry.

2.5 The Earth Charter

I conclude the Chapter on theories and perspectives with a brief introduction to the Earth Charter (Earth Charter Commission, 2000), which is intended to lay a socially and ecologically just foundation for a land-responsive pedagogical approach. While a land-responsive approach can be understood as an approach within the framework of education for sustainable development, whereby sustainable development is defined by the World Commission on Environment and Development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development, 1987, p. 43), the Earth Charter offers content and ideas on how this can be realized (Clugston, 2010).

With its 16 principles, the Earth Charter provides values, as an ethical basis for a sustainable way of life and future, that are relevant for people as individuals and communities of all kinds (Earth Charter Commission, 2000). However, it acknowledges, that ecological and social justice are intertwined (Norman et al., 2020). Since social peace encompasses oneself, the community and the biosphere, ecological justice is the prerequisite for social peace (Corcoran, 2004b). Moreover, the Earth Charter is based on human rights, economic justice, a culture of peace and respect for nature, as well as commitment and responsibility for the community, including the more-than-human and future generations (Earth Charter Commission, 2000). The Earth Charter therefore provides a framework for raising awareness of the interdependence of environmental and social aspects (Corcoran, 2004a) by adopting a more ecocentric perspective that places humans in the community of all living beings, including the more-than-human (Clugston, 2010). Thus moving away from the anthropocentric perspective, whereby, in contrast to an ecocentric view, nature has no intrinsic value here, but instead, its value is limited to serve human purposes (Cocks & Simpson, 2015). As education plays a key role in facing problems and has a responsibility to use its powers to find answers to the big questions that lead to a sustainable society, the Earth Charter has a high educational value (Clugston & Corcoran, 2023; Corcoran, 2004b). Principle 14 relates directly to education:

Integrate into formal education and life-long learning the knowledge, values, and skills needed for a sustainable way of life.

a. Provide all, especially children and youth, with educational opportunities that empower them to contribute actively to sustainable development.
b. Promote the contribution of the arts and humanities as well as the sciences in sustainability education.
c. Enhance the role of the mass media in raising awareness of ecological and social challenges.
d. Recognize the importance of moral and spiritual education for sustainable living.

In that sense, placing the Earth Charter as a basis for a pedagogical approach, including teaching about more-than-human ethics, can be recognized as a response to climate change and the resulting challenges society and more-than-humans are facing in current times.

3 Methods

In the following Chapter, I will outline my research process. I will explain my overall research design, how I selected my sample and proceeded with the data collection. Furthermore, I will point out the phases of the data analysis I went through. Finally, I present the limitations of my thesis and the ethical considerations which guided my research process.

3.1 A participatory action research design

To understand what it means to learn with the land from the perspective of teachers involved in land-responsive education, I decided to work with a qualitative research design. According to Denzin and Lincoln (2011), a qualitative approach helps to better understand a topic or phenomenon and capture the meaning people attach to it, which was in line with my research aim. This open approach allowed me to explore a variety of perspectives and emphasize the value of diversity (Kumar, 2019). Firstly, I conducted a comprehensive literature review on the topic, from place-based and place-responsive education, land-based education and Indigenous knowledge, to the Earth Charter as a basis for a land-responsive pedagogical approach, as outlined in the previous Chapter on theories and perspectives.

With my introduction to the international research project, “Learning with the Land”, I found myself engaged in transformative participatory action research. McNiff

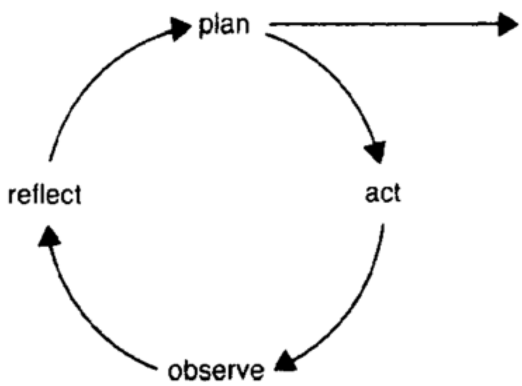

Figure 1 Action-reflection cycle (McNiff, 2013, p.57)

(2013) suggests the following principles that guide you when conducting an action research project: The first step is to observe the current situation and practice. This leads into the reflection phase, in which a problem and an aspect to be addressed are identified. The process continues with a collaborative planning phase in which ideas are collected to tackle the problem. This is followed by the fourth phase, in which the realization, the action, takes place. Once the measures have been implemented, the process is evaluated and reflected upon and, if necessary, the procedure is reconsidered, which leads to a new action-reflection cycle (see Fig. 1). However, the scope of this work does not allow me to go through the action-reflection cycle in full. Instead, I designed the first part of this cycle by defining the current situation and the field of my research, outlining the problems by reflecting on the situation in the second step, and using my research findings from the data obtained in the final step to present a proposal for recommended actions and implementations. Within this research approach, I saw the informants more as co-researchers, in the sense that I worked with them and not on them (McNiff & Whitehead, 2010). At the beginning of the action research, after an extensive literature review, I conducted participant observation while being introduced to the “Learning with the Land” research project and having conversations with the research group. Following an inductive approach, I used Haukeland and Lund-Kristensen's SPIRE model (Haukeland & Lund-Kristensen, 2019) to apply my previous knowledge of learning in and with the land and to develop themes from which to structure my further research in more detail. The model follows a pragmatic, eco-didactic action research approach, which provides a more detailed structure of the process than the action research model by McNiff (2013). The SPIRE model is named after the initial letters of the phases and is therefore divided into the following phases: situation, position, integration, realization, and evaluation. To gain a deeper understanding of the topic and to fill the themes with content, I decided to conduct individual in-depth interviews and focus group meetings, as described below.

3.2 Sample and data collection

Within this section, I will describe how I selected the sample and who my participants were. I will continue with a description of how I conducted my data collection, which included semi-structured interviews, focus group meetings and participant observation.

3.2.1 Selection of sample

To explore a land-responsive education and to capture what it means to learn with the land, seen from a teacher's perspective, two selection criteria were applied to select suitable informants. Firstly, the informant should be a professional teacher educator and secondly, the informant should be engaged with topics related to learning with the land. In addition, the participants should each have a slightly different background. The academic network of the University of South-Eastern Norway (USN) was utilized to identify suitable informants. In the first email, they were briefly introduced to my research project and asked if they were interested in participating. The second email correspondence contained an information letter with further information about the project and how their data would be handled, as well as a declaration of consent for the procedure and processing of the interview data, which they were asked to sign.

Five informants were selected, but due to the limited time frame for the master's thesis, I was only able to conduct four interviews. Instead, my research was underpinned by two focus group meetings and participatory observation of two workshops: one workshop with a group of Native Greenlandic students, who want to become teachers and their teacher from Greenland who were visiting Norway, and one on pedagogical methods for learning with the land. The workshop with the Greenlanders broadened the scope from focusing only on Norway to include land-based education in Greenland.

The informants for the interviews were selected based on their different backgrounds in order to include different perspectives on the issue. Three out of four are female and one is male. Participant 1 has a background in philosophy and pedagogy. Participant 2 works in arts and crafts education and mainly teaches early childhood teacher students. Participant 3 has a background in pedagogy, works closely with kindergartens and has a general interest in the Earth Charter. Participant 4 teaches Sámi issues in teacher education and has a focus on Indigenous issues in education.

3.2.2 Individual semi-structured interviews

To adapt my questions and the course of the interview to the informants and their backgrounds and specialization concerning my research question, and to allow myself to follow the curiosity that arose during the conversation, I chose to conduct individual in-depth semi-structured interviews. This allows both parties to steer the conversation to a certain extent, as it also gives the interviewee the opportunity to share what they personally find important and meaningful (Smith & Sparkes, 2016). Therefore, these developed conversations provide rich and valuable insights into complex personal experiences, perceptions and beliefs. These contribute to a better understanding of social circumstances (Hill et al., 2019; Smith & Sparkes, 2016) and help to bring the pedagogical approach to learning in and with the land closer. An interview guide was designed according to the themes I had developed using the SPIRE model (Haukeland & Lund-Kristensen, 2019) to help me organize my questions according to my research questions and to keep the interview on track. In six parts, the interview guide focuses on different aspects of learning with the land. Following Smith and Sparkes´ (2016) suggestions, I opened the interview with some "ice-breaker" questions about the participants' professional backgrounds. The second part was about capturing their understanding of the topic in general, e.g. their understanding of land and land-based education. I continued with more sensitive questions. Therefore, the following parts focused on teaching and learning aspects as well as on land as a teacher and the role of the teacher. The sixth and final part of the interview guide concluded with the most sensitive questions about the challenges in practice. I have also written down some follow-up questions, to go into the different backgrounds and specializations of the informants. The interviews were all conducted in Norway in English, one in person and the other three via an online session via Teams provided by the University of South-Eastern Norway.

3.2.3 Focus group meetings

To make my work more meaningful, I collected additional data from focus group sessions. In contrast to interviews, where the researcher has a large influence on the course of the conversation, here the researcher is decentralized and this setting also allows for the simultaneous dissemination of multiple meanings and perspectives (Kamberelis & Dimitriadis, 2011). Focus groups also have the advantage that they present a more natural picture in the sense that they come closer to a natural conversation through communicative interactions in the group than in an interview, in which the course of the conversation is more or less structured (Wilkinson, 2004). The first group consisted of four teacher educators who all live in Norway. I participated as an observer in an online discussion that I recorded. The other group consisted of three teacher educators, two of whom were from Norway and one from Denmark, and five local Greenlandic student teachers. I conducted the second focus group session in the form of a face-to-face seminar, while I recorded the discussion session at the end of the seminar, which, just like the first one, I did not steer but let develop itself.

3.2.4 Participatory observation

In addition, I carried out participant observation during two different workshops. During the first workshop with the group of Greenlanders, I observed the workshop, took field notes and had personal conversations with a Danish and a Norwegian teacher. The second workshop was again within the field. Six teacher educators explored methods of learning with the land and discussed various topics around sustainability and different worldviews about different ways of knowing and relating to nature.

3.3 Data analysis

In the following section, I describe how I processed the data, how I transcribed the raw data and how I coded and analyzed the material.

3.3.1 Transcription of the raw data

Following Smith and Sparks (2016), I have chosen an orthographic transcription approach. Therefore, I used the transcription software Autotekst, provided by the

University of Oslo, to transcribe the recorded audio files. The software produced almost exact transcripts, which I read through, correcting small errors and formatting "to gain a consistent representation of what is said and who is speaking" (Smith & Sparkes, 2016, p. 116).

3.3.2 Data reduction and coding

For the process of data reduction, reconstruction and coding, I followed the suggestions of Braun et al. (2016) and used the thematic analysis approach. It offers an accessible approach with great flexibility in analyzing and interpreting the data. The thematic analysis aims to find patterns within and across the data set to identify the meaning of participants' lived experiences, perspectives and practices (Clarke & Braun, 2017). I went through the various stages of first familiarizing myself with the dataset and taking notes during the initial read-through of the data. I continued with the now more systematic coding, paying attention throughout to the relevance of the research question to work toward a detailed, meaningful answer. Using NVivo software helped me to keep track of the codes. The revision of the codes followed this. Finally, the writing took place. However, these phases were not linear. It was a constant back and forth and a repetition of the processes to ensure the coherence and quality of my research. I chose a deductive approach to now match the codes to the themes I had previously identified. The reading I had previously done on my research topic influenced the way I interpreted the data (Braun et al., 2016).

3.4 Limitations and ethical considerations

I conclude the methodology Chapter by explaining the ethical considerations I took into account during the research process to ensure the quality of my research and pointing out the limitations of this master's thesis.

3.4.1 Ethical considerations

I applied research ethics, as they are outlined by Humberstone and Riddick (2020) to justify my research. They summarize them in four categories: "informed consent; honesty, gain and justice; risk of harm; and confidentiality and anonymity" (p. 22). To ensure the security of the data and the anonymity of the participants, and to be generally ethically responsible, I followed the guidelines of the Norwegian Agency for Shared Services in Education and Research (SIKT) throughout my research process. Before I started collecting data, the research project therefore had to be authorized by SIKT (reference number: 432509). The participants contacted were then informed about the project and their rights and had to agree to the interview being voice recorded and their data being stored securely until the end of the project and then deleted.

3.4.2 Data verification

To ensure the quality and trustworthiness of research, Guba and Lincoln (1994) identify four criteria, namely credibility, reliability, confirmability and transferability, which include the standards of validity and reliability (Kumar, 2019). Therefore, I used different strategies to verify the data and fulfill the criteria. Firstly, to add credibility to my narrative work, I have spent time in the field and conducted participant observation to gain a deeper understanding of the culture (Creswell & Creswell, 2023). Secondly, I have carried out method triangulation, which means that I have approached my research using different methods, such as individual interviews, focus group sessions and participant observation, thus looking at it from various perspectives. This contributes to the confirmability of my research, which means that I aim for a more neutral positioning and understanding (Cohen & Crabtree, 2006). Thirdly, also in the area of confirmability, I have presented the bias of my work through a reflective examination of myself as a researcher. Fourthly, I have emphasized a detailed description of my research process to provide a comprehensive and transparent insight into my work, which contributes to the transferability of my research (Creswell & Creswell, 2023).

3.4.3 Limitations

Within the time frame of this 30 ECTS master's thesis, some restrictions and limitations of the work had to be accepted due to time and scope. This includes the sample size, which with four interviews and two focus groups is not representative on a larger scale and therefore the results cannot be generalized (Smith & Sparkes, 2016). The gender distribution is also unbalanced, with only one male participant and three female participants. As already mentioned, a Sámi perspective among the participants would have been enriching, but this failed after several attempts to contact potential participants.

Another major limiting factor in this work is myself and my bias as a researcher. I have entered the field as an outsider. I am conducting research in a Nordic culture, which I got to know during my studies, but in which I am still an outsider as I have lived most of my life in Germany and do not speak a Nordic language. Therefore, all interviews were conducted in English, which is neither my native language nor the native language of the participants, except one. I am aware of my position as a young white woman who grew up in Germany who researches partly in the field of Indigenous knowledge and decolonizing methods.

4 Findings

In the following Chapter, I will present the findings from the interview data, the focus group meetings and my participatory observations. Therefore, I will first describe how I developed the themes before explaining them using examples from my data.

4.1 Coming to the themes

As already described Chapter 3, I first identified themes by working with the SPIRE model before collecting my actual data through in-depth interviews and focus group meetings. Through engagement with the “Learning with the Land” research project, participant observation and reading relevant literature, I identified the following themes (here written in italics) using the SPIRE model: *Understanding the land* was the first step in situating the problem. Positioning my topic based on my previous research led to the idea of land-responsive education: *combining the old and the new*. In the next step of integration, I identified different areas of consequences, namely *learning, teaching and ethics*, which also contain some ideas for practical implementation. In addition, the theme of *challenges* could also be identified in connection with the areas of consequences. After coding my transcribed data, I assigned the codes to these themes. In the following, I will outline the themes and present them with the content of my data.

4.2 Thematic outline of findings

4.2.1 Understanding the land

The first theme lays a foundation for the approach of learning with the land, attempting to define the term “land” in this context. Within my thematic analysis, I found two main elements to describe the concept of land. The first is to see land as *“the physical land”* as Participant 1 describes it:

We're talking land as in nature, weather, sort of animals, flora, fauna, the actual shape of the land, the mountains, the sea.

Participant 2 gives more concrete examples of this:

> *But it's also about both the soil, the ground, what is in the ground, what is growing from the ground, who lives under the ground, ground rats and trees. Of course, both, living plants and animals. But also chemical components, both of the soil and of the rock and stone and water and rain.*

This physicality and materiality of the land is what we can see when we look at a landscape. We can see plants, animals, and the overall topography of a landscape, including water and vegetation. However, there are also physical parts that we cannot see directly, but that we know are there because we have learned, for example, what is under the field or which chemical elements are present in the soil.

The second element of the concept of land reaches beyond the physical and material aspects.

> *So land is much more an extended concept, it's something more alive, it's something more that you connect in. [...] So the land is not just one thing. It is multiple possibilities. It's a mystery in some ways, what the land can be.*

This more-than-physical aspect of the land, that Participant 1 tries to describe in this quote, seems difficult to grasp. Yet it is precisely this invisible aspect that plays a major role in how we connect to the land, as the first focus group meeting makes clear:

> *There is something specific that we engage with, but at this materiality is also agency connected to it in some way.*

The land is not just a dead object as we perceive it when we look at it "from the outside". It is much more than just the material to connect with. There seems to be a kind of autonomy and attraction emanating from the land with which people engage and interact.

4.2.2 Combining the old and the new

As I familiarised myself with learning with the land, I quickly realized that the idea behind this educational approach was to combine traditional with modern knowledge, the old and the new. At the same time, however, many questions arose as to what this could look like in practice. Also in all my data, the claim to combine traditional and modern knowledge was a present topic. A participant in one of the focus group meetings commented as follows:

It's about honoring the old and opening to the new.
It's like combining the old and the new. [...] And so that's going back to this balance between how to take seriously the stories that are there and engaging also with them in some playful way but not being inhibited or trapped there.

Since it involves recognizing different forms of knowledge, one challenge is to combine the traditional and the modern ways of knowing practically. The other challenge is to maintain a good balance between them. Another question that arises here is: What do we want to leave behind and what do we want to take with us, both from the modern and the traditional Indigenous perspective?

As discussed in the first focus group meeting, knowing the skills of the tradition is a prerequisite for openness. Thus, one has to be careful about not appropriating Indigenous ways while engaging with the tradition. Because *"that could potentially mean a way of colonization again in some sense",* as Participant 1 claims. All informants in my interviews believe that incorporating traditions and Indigenous perspectives means learning from and about Indigenous people, while at the same time, there is a need to treat them with great respect. Furthermore, non-Indigenous people lack the spiritual connection that Indigenous people have, as well as the connection to their ancestors. In this context, it should be considered that non-Indigenous people cannot practice certain traditional practices, as Participant 2 explains using the example of Sámi handicraft *"dodgy"*. One way of incorporating traditional perspectives could be to get inspiration from Indigenous approaches, e.g. the Sámi sewing technique, but not to copy it, but to make something of your own out of it, as Participant 4 suggests.

While considering traditional perspectives, Participant 4 refers to Sámi´s didactics:

> *The Sámi didactics, it's the holistic didactics where things are not like different subjects are not divided up. It's much more different skills at the same time.*

The focus here is on interdisciplinary work as part of a holistic approach. This also fits in with what Participant 2 suggests. She sees learning with the land as a way of combining several formal subjects such as science, languages, art and physical education, which could be taught simultaneously, all related to the land.

Participant 1 shows an example of how traditional Sámi knowledge could be combined with modern scientific knowledge of different subjects while learning from the land:

> *And modern ways of an example of that could be that while you learn how to practice reindeer herding, you also learn for example more biology, you may learn a little bit more zoology of the reindeer, you may learn cultural context in which reindeer herding has evolved through time, you may learn a little bit of the institutional difficulties within the context of reindeer herding so that you understand more of the politics and economics of reindeer herding. And suddenly you get more knowledge about the whole practice in some ways. But I think it needs to start with certain connections, certain kinds of practical connections.*

This example reflects the problem of mainstream education, which does not start from practice, but from theory. However, it becomes clear that learning with the land always requires a practical starting point before moving on to theory. In this case, the practical experience of reindeer herding comes first and is then accompanied by the theoretical viewpoint of biology, zoology, politics and economics.

In the following quote, Participant 1 gives another example, this time from the position of how modern knowledge can be brought into learning with the land while practicing modern ways of doing things.

> *Friluftsliv education, you could start with some maybe simple ways of people learning to engage with the land through for example hiking a*

> *mountain in the area or exploring on foot or on snowshoes or on skis certain tracks in the area. Get to know the animals of an area, get to know the geology of an area to sort of explore it through maybe climbing the mountain. [...] So you may do things like that in the outdoor educational field as you're connecting to the more-than-human.*

Even if traditional knowledge does not play an explicit role in this example, the learning objectives still correspond to a land-responsive approach and the focus is on engaging with the land and *"connecting to the more-than-human".*

4.2.3 Learning, teaching and ethics

Learning

The first area of consequence is learning in land-responsive education. Since learning takes place by interacting or engaging with something, in this case, as it is about learning from and with the land, a certain level of engagement and connection with the land is required. When analyzing the participants' statements about their connection to the land, I can distinguish between different levels. I start with the more general forms of connection with the land before referring them to specific examples. These types of connections are influenced by various factors, which I will present below.

All participants describe connecting with the land as a kind of engagement, interplay, or attunement to the land. In the following quote, Participant 1 gives different examples and dimensions of connection with different beings of the land.

> *So you're engaging with maybe the forest, or the river, or the more-than-human, like stones, and the weather, and so on. But you're also engaging with cultural histories. For example, you're engaging with buildings, the way people are, infrastructure of the place, the towns, the settlements. You're engaging with people who are influencing the way you see things. [...] So the land is all these beings interacting or interplaying with each other.*

Here you can see, how diverse the land itself is and how everything in the land is interwoven. It shows how people and other beings connect through interaction and interplaying. It also becomes clear that land encompasses not only nature in the sense of plants, animals and other more-than-humans but that culture and history are also part of it, which contributes to the understanding of the concept of land and adds another dimension to it. However, Participant 3 admits that everything starts from nature: people come from nature, and culture then arises from this, but always in relationship to nature. She expresses her interaction with the land in other words, using very figurative language:

> *I think nature is itself like an ecological dance. And I think that playing is quite like the Norwegian landscape. You dance with the landscape.*

For her, engaging with the land and tuning into it is synonymous with playing and dancing with the land. Dancing requires attention and awareness of the environment, the other person or other beings and oneself to react and respond. It is the dance that underlies the dance of teaching, as described in Chapter 4.2, and into which it fits. Responsible and respectful interaction with one another is the basis here. You could say that the participants have equal rights. That brings me to the next argument.

All participants in the interviews, as well as in the focus groups, point out their dependency on the land and acknowledge being part of the ecosystem. However, they often refer to Indigenous cultures in which this holistic understanding is much more firmly anchored than in Western culture. According to their perspective, land is understood as home, which means that all its parts, such as nature, community, people, culture and oneself, are linked to an understanding of home, as Participant 1 explains. And thus it is also their identity. Participant 2 argues that as non-Indigenous people we are much more caught up in our egoic thinking which prevents us from seeing the bigger picture in which we are only a small part and interdependent, including the more-than-human. This is also reflected in the language. Indigenous languages are very descriptive and rooted in cultural practices. The language is also used to tell stories, which is an important part of their culture that connects them to the land. Sámi people, for instance, have 300 words for snow. All these terms are informed by their practice of reindeer herding, as Participant 1 explains. Western languages, on the other hand, are very noun-centered. The latter therefore differentiate themselves from nature through language and expression alone by "looking out to nature". The following quote from Participant 1, takes up the aspect of language and the Western consumer society, which separates itself from nature and thus largely prevents a connection to it.

So for example, if you only think of nature as a resource, or culture as something outside of ourselves, then we may not connect to it. And that way, if you don't connect to it, we may not see how we harm it, or how we can help it in some ways.

Cultural practices such as reindeer herding are crucial in the Sámi people's connection to the land. Other typical practices include hunting, fishing, handcrafts and traditional folk dance and music. Storytelling is another important part of Indigenous cultures that connects them to the land, with language again playing a major role. The focus group of Greenland's Indigenous people showed some pictures of their traditional clothing and tattoos which vary from region to region. These traditional practices have been learned from their ancestors and are passed down from generation to generation. This is their way of learning and living with and in the land, as Participant 1 explained. In Western society, there are also modern cultural practices that are connected to the land, but Participant 1 is critical of the actual connection to the land:

We may just teach paddling skills or climbing skills or glacier skills and stuff like that. But really we don't fully understand why we're doing it in terms of connecting to the land and our histories and why this is important.

This is where the different perceptions of land come into play. In this argument, Western society uses the land only as an arena, as a backdrop for activities and human exploration, thus subliminally placing humans above nature.

But there are also other approaches and practices in Western society that promote a reconnection with the land. Handcraft is one of them. Crucially, it takes a lot of time and effort, whereas you can buy something similar easily and cheaply in a shop. It's not necessarily about the product itself, but about the process of making it. Participant 2 describes this as follows:

And then I realized that actually the time I spend on it that's something important for me. Because it makes me connect. And also when I make something myself I want to use it. I don't want to throw it away. I will take care of it and then again it brings me to consumption. Then I don't want to just go and buy whatever. I want to *wear and to have what I know where it comes from. And even when I spend lots of time on something, then I also respect the time it takes to make something and also I respect more people who sit in China or India and use lots of time to make clothes for me because I want to buy cheap.*

But how you connect with the land depends a lot on your own background, how you grew up, your parents and grandparents, the values they passed on and how they lived, as most participants say. If you go back in time, most of the time people have developed in harmony with the land. The loss of connection can only be attributed to the last few generations, accompanied by the industrialization and modernization of society. In Indigenous cultures, people have still a very *"close connection to their ancestors".* They respect and learn from them. So, in a way, they also connect through their ancestors to the land. Even though, something else is different in their connection. It is the spirituality that Indigenous people have that connects them to the land which non-Indigenous people lack. Participant 4 admits:

I don't think we can do it as Indigenous people too, because they have a spiritual connection to the land, which I don't think you can get if you're not Indigenous.

Indigenous culture and practices are rooted in certain values, philosophical ideas, and spiritual aspects, all of which are characterized by the land. All in all, Indigenous culture cannot be separated from nature and Indigenous people cannot be separated from their land. Participant 4 argues:

Because all their cultural expression is connected to nature, their values, their goals, their plans for their children, their descendants are all connected to nature and the land and living on the land of their ancestors.

At some point, all interview participants refer to John Dewey and the approach of learning by doing, which should be part of land-responsive learning as they suggest. Participant 2 argues in favor of this by emphasizing how important it is to have at least one *"deep experience of connecting with the land"*, because:

> *John Dewey, he says that our experiences are like our organs through which we breathe. Everything we have with us, it will influence how we talk, how we connect and how we teach.*

Participant 1 takes this one step further while referring to the reflection part of this learning process. Because it is not just about learning by doing, but about *"learning by doing and reflecting"*, he says. Therefore, a practical point of reference is needed first, a practical experience on which the learning process can be further built, for example in the form of a reflection. This reflection section could be supplemented by a theoretical section, as in the example of reindeer herding.

Teaching

The second area in which there are consequences is teaching in land-responsive education. The role of the teacher in particular must be considered here. Because on one hand there is the formal, human teacher, and on the other hand, there is the land as a teacher. Participant 3 uses *"dancing"* as a metaphor for teaching with the land. She describes her *"three pedagogical positions"* as an educator in her work with kindergarten children as follows:

> *When the children are free playing, the grown-ups should attend, but on the children's demand in a way. And they should observe and be alert with a lot of pedagogical mindfulness and then dance with the children in a way. And you can dance behind the children and you can dance with the children and you can also dance in front of the children. So these are my three pedagogical positions in a way.*

This pictorial representation of the pedagogical approaches leaves enough space to include the land as a teacher in the dance. The land can take up various positions parallel to the teacher, i.e. dance with the teacher, as well as take on other positions on a further level in this triangular relationship between student, teacher and land. These relationships can be adjusted according to requirements and the situation. It is therefore necessary for the formal teacher to be aware of the different positions and to realize where they are in this structure and how they can take up a different position if necessary. This, in turn, requires an understanding and attentiveness of the formal teacher towards the other parties and their needs and requirements. However, the aim is not to control this process as a formal teacher but rather to react appropriately to ongoing processes.

In the following, Participant 1 gives an example of how the land, or more precisely the moose in this case, can be a teacher:

> *For example a moose, the way it walks in the terrain, you know, up through a hill, it can teach you much about good places to hike, because it knows intuitively how the places to go in the landscape, so if you follow those tracks you will get a feel for how to move in the land, and that way the moose, with its interaction to the slope, will help teach you also a way to engage with the land.*

Here, you can see the moose, or the land, dancing in front of both the student and the teacher. At the point where modern knowledge is added, for example, to learn more about the moose, the formal teacher takes over the lead of the dance again. This coincides with the statement of Participant 1, who sees himself as *"co-teaching"* with the land. It means a *"cooperation"* between him, as the formal teacher and the land as a teacher. The land is therefore a *"co-participant"* in the learning, which fits very well into the picture of Participant 3´s dance. Consequently, the formal teacher does not control the learning process alone but must be open and flexible to allow the land the space and freedom to participate, influence and engage in the process. This flexibility also requires not doing something just because you've planned it, as the participants in the first focus group agree. Participant 1 sees it as a great challenge in practical implementation to recognize the land as a teacher and as being an active part of the process:

> *The most important challenge is for me to recognize also the land as a teacher, or as a participant in the learning and the teaching process, and that it's not just an arena, but it's some actor that can participate actively in the learning process.*

We have grown up in the Western system and have internalized values and ideas to such an extent that it is very difficult to let go of what we have been told all our lives. We are so molded to see land as an arena that it takes a lot of effort to change our perspective and put it into practice, to see land as an actor.

Although there is a formal education system that is imposed on teachers and within which they are expected to organize their teaching, Participant 3 recommends looking more closely at the curriculum, which may offer more potential than initially thought. Participant 3 realizes that it is not used as it could be used. So she offers some advice:

> *The concept for that is to analyze the curriculum and then you can use this didactical relational thinking as a structure, as key questions to ask. What does this curriculum really say? What does it say about how we should teach? Why does it say this? What is it? Why is this important for us? And what are the possibilities and the frames that we have to play inside? And how can we stretch it so that it is good for us? Because when it's good for us, we are the best teachers.*

In the following quote, Participant 3 describes a very specific practical approach that could be used to combine the formal requirements of the curriculum with an alternative land-responsive approach.

> *The storyline is a playful, artistic way of merging what you have to do in the curriculum and the magic of a story. Storyline is a beautiful way to move this approach forward and to do it in real as a didactical approach.*

Ethics

The third area of consequences concerns ethics, which also relates to the aims and purpose of land-responsive education. As climate change, the loss of nature and the future of further generations are issues that are repeatedly referred to, the overarching aim is to educate for a sustainable way of life and future.

> *People must admit that the sustainability goals, we are far from being there. And people are asking themselves ´why?´. And they come up with the answer is because we are just doing the sustainability goals from the outside world. It's not connected to our own inside.*

Although there are sustainability goals in society, Participant 3 complains that it is not enough to approach this from the outside. The change must come from within people, through their way of thinking and their ethical convictions. And that is how a land-responsive approach should work, it should *"grow from inside out and from bottom up"*, as Participant 3 says.

From all my conversations, encounters and observations, it became clear that a land-responsive educational approach aims to foster the connection between humans and nature and to create an understanding of one's place in it and how we are entangled with it, as it is the foundation for a sustainable way of living. That goes hand in hand with a great respect for nature. This understanding of themselves in connection with nature could also contribute to *"a deeper sense of joy and meaning in their lives"*, as Participant 1 presumes. So you could say that the idea is to reach the inside of people to prepare them to change the outside themselves. Participant 4 describes the learning outcomes more concretely:

> *With the land, you're learning in ways that benefit the land. So you're learning conservation to do with community, to do ways of preserving land for the next generation. That's a very important part of this. Rather than taking what you need from it, you're also giving back and you're keeping things in balance so that this connection to land can continue in the future.*

This quote illustrates the attitude of long-term thinking that goes hand in hand with a sense of responsibility for future generations. From this perspective, which is a matter of course for Indigenous people, land is not just a resource, but an exchange takes place between nature and humans. A reciprocity in which all participants, whether human or non-human, have the same value. Such consideration and respectful interaction are intended to secure the future existence of the land and life on it. However, it is the aim of a land-responsive approach to learn about ways to live sustainably on and with the land. This includes what Participant 4 goes on to explain:

> *[U]nderstanding of the natural world around and awareness, increased awareness of nature in their area and also being able to use nature or to utilize resources in nature for pleasure or for eating, being able to collect berries or whatever or also do some artwork, self-expression.*

Therefore, it is as much about adopting certain insights and attitudes as it is about learning practical things about how to live with the land.

Earth Charter as an ethical framework. Following Participant 3, the Earth Charter, which I have already presented in Chapter 2.5, could be a valuable ethical basis for a land-responsive curriculum:

> *I think the Earth Charter can contribute to both education and community and the world community and everything in an ethical way because it's an ethical framework. [...] you can address both the sustainability goals, the human rights goals and the goals for peace.*

The Earth Charter is an ethical framework that is universally applicable and, above all, takes a holistic perspective by incorporating many perspectives, as mentioned in the quote, and bringing them to a global level. Furthermore, the Earth Charter itself and its development process serve as a model for *"going from the inside and out and from the bottom and up".* However, it is simple and complex at the same time. Simple in the sense that the principles are written down and very clearly formulated. But it is also complex in the sense that it is not so easy to implement them directly in society or even on a smaller scale, e.g. in a land-responsive approach. It takes time to establish the principles and the values behind it.

4.2.4 Challenges

The attempt to create a space in formal education that brings students closer to nature, and thus to teach with a land-responsive pedagogical approach, brings many challenges and problems and therefore refers to the final theme of my analysis, which is very much related to the institutional factor in land-responsive education. Participant 1 points out:

> *[B]ecause in a formal educational system, there are many obstacles, for example like safety issues, and there's issues of that you cannot have the time to spend a whole day outside, you know, you have to have certain subjects if you only have one or two hours in a class or something, it's too short time to get something connecting and so on. So there's lots of those kinds of challenges in the formal institutional*

setting that prevent us from fully engaging with the land in some ways.

All participants see the system of formal education as an obstacle to the implementation of a land-responsive pedagogical approach. The education system, especially in schools and universities, is very narrow, with many regulations and expectations. There is no capacity and no time for anything else.

> *I think the trouble is that it's very hard to do in the current system that we have because we don't have an educational system in schools or universities, which enables land-based learning. We are confined to our timetables, to the rooms, to having online classrooms, we have to produce all this stuff. While ideally, we should be able to go out in nature and do our classes in nature. But then that doesn't fit in what people expect, there's these expectations of what a university education should be. So there's a conflict there between the potential for land-based learning and the system we currently have now and people's expectations in the system.*

The quote from Participant 4 shows some of these obstacles and refers to the circumstances of our capitalist society in which it is difficult to find a place for a land-responsive learning approach, which takes time and earns nothing in the capitalist sense. Time is an important factor that you need to build a connection and a relationship with something, no matter what exactly. This creates respect because you not only gain knowledge about it but also develop emotions and feelings over time, which results in a new sense of responsibility. For example, to recognize our dependency on the land and the more-than-human, requires, that we take care of it. Therefore, in general, a holistic understanding of nature and oneself as part of the ecological community influences how we interact and engage with the land and its living beings. Without spending time in nature, there is no opportunity to develop this understanding and relationship with the land. After all, building relationships takes time as became clear again in both the interviews, the focus groups and my participatory observations.

To recognize that learning takes time, is an Indigenous principle, as Participant 2 explains. Thus, the implementation of such a land-responsive approach in the current formal education system also takes time. It is a process that has to *"grow from inside out and from bottom up"*, as Participant 3 explains. Participant 2 takes this further:

> *We are so stuck into thinking of money and economic prosperity. That is why we have to do things fast. That is why we need to use machines. That is why we should not go backward.*

Here it becomes clear that Western society is mainly concerned with quantity, which takes up less time, and not with quality. There are expectations from the formal education system on the one hand and expectations from the perspective of a land-responsive approach on the other, which collide with each other. It is precisely this conflict between traditional and modern knowledge, between Indigenous and Western cultures and between anthropocentric and non-anthropocentric world views: you can differentiate here between two different value systems. This conflict is quite unbalanced due to the power differences and the colonization issue, as Participant 2 emphasizes. This is a major challenge that needs to be overcome and, in the context of education, leads to the question of how traditional and modern knowledge can be combined instead of being played off against each other, as already presented above.

Another difference between these two approaches is that Indigenous cultures start from practice and then move on to theory, as this is close to a land-responsive approach, whereas in Western society, both in academia and in the classroom, one usually starts with theory and then moves on to practice. Participant 3 expresses very strong feelings about this: "*Then I get angry, that's an obstacle".*

An understanding of values that see economic growth as the greatest good makes it difficult to implement land-responsive education in formal education. This is also because there is a lack of resources and money, which are distributed differently due to other priorities and not in favor of land-responsive education. Accordingly, the support required for the formalization of land-responsive education is still lacking.

Participant 1 argues, that as land-responsive ideas are linked to Indigenous ways of knowing and doing, they are not formalized per se, as there is no formalized education in Indigenous cultures. This makes it even more difficult to implement. Nevertheless, Participant 4 is optimistic:

Decolonization is going to happen one small step at a time. We can't do big jumps. It's not going to happen. And that's the kind of thing that I see. I don't think we're there for that step now, but at a point in the future, absolutely. I think it's something that could be a step towards decolonization of education.

Implementing a land-responsive educational approach in formal education, combining traditional and modern knowledge, would support decolonization alongside the aspect of re-establishing a deeper human-nature connection and a connection to the land, to promote sustainable behavior and lifestyles.

Teaching with the land requires skills and knowledge of suitable methodologies and didactics. Thus, teachers in this formal system cannot pursue such a land-responsive approach, partly because they lack the skills in teaching methods, which in turn is due to teacher education. Conversely, this also means that not only education in schools and kindergartens has to change but also the education of the teachers.

4.3 Summary of findings

In summarising my findings, I have identified four key findings that are related to the first steps of the SPIRE model (Haukeland & Lund-Kristensen, 2019), namely situation, position and integration. First, the situation outlines an understanding of the land, which is my first theme, which provides a basic understanding of learning with the land. The positioning of my research topic, namely the idea of land-responsive education, culminates in *the combination of the old and the new*, the traditional and the modern knowledge. This has consequences in several areas, which are addressed by the third theme. The first area is *learning*, which is about different ways of connecting with the land. The second area is *teaching*, which is primarily about the role of the teacher and the role of the land as a teacher. This leads to the third area, which relates to the *ethics*, aims and purpose of land-responsive education. In its application, the Earth Charter offers an ethical foundation that provides a framework for the whole process. All of this leads to the last major theme, the *challenges* that arise from all of this, which relate primarily to institutional factors. In the following Chapter, I will discuss these key findings by applying the literature and some theoretical perspectives.

5 Discussion

In this Chapter, I discuss my findings based on the underlying theories and perspectives presented in Chapter 2 and link the findings to my research questions. With my research, I wanted to find out: What does teaching and learning in and with the land entail to develop a land-responsive education? With the sub-questions of (a) What role does the land play in teaching and learning in a land-responsive education? and (b) What are the didactical challenges in a land-responsive education?

Even though I did not have a theoretical framework at the beginning of my work, which certainly fits my inductive approach at the beginning, I was now able to apply different theories to my findings, especially the relational materialist approach (Hultman & Lenz Taguchi, 2010), which turned out to be very fitting as a framework for my findings. Thus I begin with the categorization of land in the Actor-Network Theory (Latour, 2005), which helps me understand the land as an actor with its agency, as a teacher in learning with the land. Building on this, I adopt the relational materialist perspective (Hultman & Lenz Taguchi, 2010) to discuss the interconnectedness and interrelatedness of land, students, and teachers. In my third section, I refer to the concept of reciprocal restoration (Kimmerer, 2011) as an example of the combination of traditional and modern knowledge, which in turn is based on a human-nature relationship that coincides with the relational materialist approach. Furthermore, to contextualize the idea of responsiveness in land-responsive education, which is also linked to the phenomenon of reciprocity, I draw on place-responsive education (Wattchow & Brown, 2011a). In the final section, I discuss the institutional challenges facing land-responsive education in the Western formal system. In doing so, I refer again to the Earth Charter (Earth Charter Commission, 2000) and show how my findings are reflected in it.

5.1 Land as a teacher

The first point of my discussion forms a basis for understanding my research topic and can also be linked to the first sub-question of my research question: What role does the land play in teaching and learning in a land-responsive education? In the context of this question, this discussion point is mainly concerned with the part of the question that relates to the role of the land in general, what the land entails, and, in particular, the role of the land as a teacher. The understanding of the concept of land, that reaches beyond the material aspects, as Participant 1 described, resonates with several discussions in the literature (Haraway, 2016; Hultman & Lenz Taguchi, 2010; Latour, 2005). These authors advocate an understanding of the world and its living beings in which everything is interwoven and interdependent. This is accompanied by an eco-centric perspective (Abram, 1996), that decenters the human by recentering the more-than-human. Latour (2005) sees it as a network of actors. In the context of the land, the land is therefore also an actor, as are humans, animals, plants and everything else that is part of the land. All actors have agency and therefore influence and interact with each other. Every kind of materiality also has agency (Hultman & Lenz Taguchi, 2010). This means for example, that a stone itself is an actor within the larger network and has agency.

Recognizing land as an actor also creates the basis for understanding land as a teacher. In this sense, the land has an effect and consequently influences people, as they are confronted with the land and therefore interact with it. The role of the land as a teacher is also found in the first touchstone for environmental educators by Jickling et al. (2018). Their assumptions about wilderness education aim to incorporate the natural world into the educational team. However, they point out that recognizing the agency and voices of the natural world requires attention and attentive listening. Having the land in the pedagogical team of a land-responsive approach means recognizing this network of actors in which the land is an actor equal to the formal teacher. This supports Participant 1's description, seeing himself as a co-teacher and cooperating with the land. The formal teacher is just another actor in this learning environment, while the students themselves are also actors. As an example, I take the quote from Participant 1, who describes how the moose is guided by the landscape and the students can therefore learn from the moose which paths are good to take (see Chapter 4.2.3). Several actors can be recognized here, namely the moose, the landscape and the terrain with all the different actors it embodies, and the human actors, such as the students and the teacher. Furthermore, there are several teachers in that example. The landscape in all its entities teaches the moose and together they teach the humans. Since the formal teacher is only one actor among many and is not regarded as the only teacher, the responsibility for the process in this educational environment of a land-responsive approach is distributed among the different actors. It therefore requires openness and flexibility from all those involved to react to ongoing processes. In contrast to the role of the teacher in a standardized Western education system, here the formal teacher does not embody leadership with full responsibility. From a Western perspective, where the teacher is hierarchically superior and supposedly in control of the learning process, the process needs to be loosened up and made more flexible and diverse to allow for a decentring of the teacher. Only when the teacher can take a step back and relinquish control, the natural world can come more into focus and the land becomes the teacher. Coming from an anthropocentric Western society, it is a challenge to internalize this different perspective and put it into practice.

Thus, the land as an actor constantly interacts with the human being since the human being is in a sense constantly in the land. This brings me to the next aspect of my discussion.

5.2 Land of dances and becomings

To approach my main research question: What does teaching and learning in and with the land entail to develop a land-responsive education?, I will draw on Participant 3's comments to discuss this further. She describes all interactions in and with the land as *"dancing"* with and in the land. Since "learning by doing" (Dewey, 2007) is a practical approach to learning with the land, as all interview participants noted, there is some interaction between the land and the students while experiencing the land. Participant 3 describes nature itself as an "ecological dance", in which students participate while learning with the land. She equates playing in nature with dancing with nature or *"danc[ing] with the landscape"*. Thus the experience takes place within this ecological dance.

Scholars, such as Mannion et al. (2013), Mikaels (2019), Stewart (2004) and Wattchow and Brown (2011a), are calling for a shift away from the anthropocentric view, from which nature is seen as "being there for human purposes alone [and] place(s) often become no more than a backdrop for people-centered activities" (Mikaels, 2019, p. 87). Looking at the quote from Participant 1,

> *[T]he land is all these beings interacting or interplaying with each other.*

which has already been presented in a broader context above in Chapter 4.3.2, through the lens of a relational materialist perspective (Hultman & Lenz Taguchi, 2010), supported by the Actor-Network Theory by Latour (2005), a new perspective on the relationship between humans and more-than-humans opens up. I therefore follow the assumptions of Hultman and Lenz Taguchi (2010), who describe nature in the manner of “a space in which non-human forces are equally at play and work as constitutive factors in children’s learning and becomings“ (p. 527). Speaking in their own words, the students are “becoming land” while they dance, experience, and learn with and in the land. The boundaries between organism and matter, as well as the asymmetrical division into subject and object, which always values the subject, the human being, more highly, are abolished. Rather than understanding land as a passive part and humans as an active part of the learning process, they refer to Deleuze, who transforms this negative division into a positive division (Hultman & Lenz Taguchi, 2010). Accordingly, Hultman and Lenz Taguchi (2010) describe difference itself as “a continuum and a multiplicity, rather than a difference in a system of separations and divisions“ (p. 529). This relational materialist perspective helps to understand how we connect and engage with nature and how we learn with the land.

Looking at the perspective of Indigenous peoples on their relationship and connection with the land, the negative separation between humans and nature is inherently less than that of a modern Western perspective. As their cultural expressions, language and values are very closely connected to nature and can be seen as a response to the land they live on (Streit & Mason, 2017), Indigenous perspectives can be more easily connected to a thinking of becoming. In indigenous cultures, we can see an example of how a culture recognizes the more-than-human and its agency (Scully, 2020). They are aware of their kinship, connection, and dependence on the more-than-human, treat it with respect, and recognize their reciprocal relationship with it – this brings me to my next topic of discussion.

5.3 Reciprocity and responsiveness

By further questioning the anthropocentric view, I go on to discuss how to combine different ways of knowing in this context. The attempt to combine modern and traditional knowledge is taken up in the approach of reciprocal restoration

(Kimmerer, 2011). Here the aim is to restore and repair the ecosystem, the land, as well as the culture, that is connected to it. Therefore, Traditional Ecological Knowledge (TEK), which is grounded in Indigenous knowledge and practices, is combined with Western restoration science. The phenomenon of reciprocity between the people and the land is naturally anchored in the understanding of Indigenous cultures (Norman et al., 2020), as I have already indicated in the literature review. Kimmerer (2011) also argues concerning climate change and the ecological crisis: “It is not the land that is broken, but our relationship with it” (p. 272). In the fight against climate change and for a future worth living for all living beings, it is therefore first and foremost important to restore the relationship between humans and the land. This relationship should be about respect, responsibility, and reciprocity. By striving for a more sustainable society and a more sustainable lifestyle, we recognize the reciprocity between humans and nature, or humans and more-than-humans. By referring to Indigenous perspectives, reciprocal restoration moves away from the anthropocentric view and aims to implement a perspective in Western culture that recognizes the more-than-human and the land as actors.

Furthermore, Kimmerer (2011) sees reciprocal restoration as an opportunity for Western cultures “to start becoming indigenous to place“ (p. 272). She describes these cultures as immigrant cultures that live according to the anthropocentric motto “take what you can get and move on“ (p. 272). For her, “becoming indigenous to place” (p. 272) means immersing herself in the natural world, engaging with it, building a relationship in all its dimensions and living in and with the land in a way that takes into account the future of future generations and maintains a liveable foundation for them too. Basically, it describes nothing other than what I call in my thesis "land-responsive education". Finally, in learning with the land, I also refer to a Westernized target group, the "immigrant cultures", intending to build a relationship with the land and the more-than-human, for a sustainable life and a sustainable future. It must be recognized that Indigenous cultures, which live much more closely connected and dependent on the land than Western societies, feel the consequences of reciprocity and imbalance much more strongly today than Western cultures, which are more concerned with controlling the forces of nature (Kimmerer, 2011). However, I see reciprocal restoration as an example and a way to combine traditional and modern knowledge. Even if land-responsive education goes beyond this approach and also includes land-based practices from both perspectives, it can serve as an example and starting point for the practical combination of these different worldviews. This also provides the desired holistic perspective and a path to cross-curricular teaching, which was demanded by the participants as an important element of land-responsive education.

Another approach related to the aspect of reciprocity and addressing the responsive part of land-responsive education is the approach of place-responsive pedagogy from the field of outdoor education. Wattchow and Brown (2011b) describe place-responsiveness as a reciprocal process. In contrast to place-based pedagogy, place-responsive pedagogy primarily aims "for educating for environmentally sustainable human-nature relations [and] for an environmentally sustainable future" (Mikaels, 2018, p. 4) whereas in place-based education the aspect of the human-nature relationship tends to be less important than socio-cultural aspects (Stansberry et al., 2023). Responsiveness here refers to cultural, historical and ecological conditions of places whereby an empathetic response is sought. It is also important how people interact with places and perceive them. Being responsive thus calls for acting, reacting and responding to the environment in all its forms (Mannion et al., 2013; Mikaels, 2019; Stewart, 2004; Wattchow & Brown, 2011b). This reaction and response can again be underpinned by relational materialist thinking, in that it responds to the agency of all matter.

A practical point of reference is also a prerequisite for place-responsive education because, without practical experience in the place, it is not possible to react and respond. Even though I am not talking about "place" but about "land" in my research, the differences have already been mentioned in Chapter 2, the approach of place-responsive education provides an important basis and understanding. In particular, it is much more widespread in the academic literature and has already been trialed in the formal education system (Mikaels, 2018). Although formal curriculum and institutional challenges also need to be addressed. The problem here too, as already recognized in the interviews, is that the teachers lack the skills and methods to implement such an approach. In the area of place-based education, for example, workshops were organized to prepare teachers for their lessons and provide them with the necessary pedagogical skills and methods (Mikaels, 2018). Thus, place-responsive education can serve as an example of the development and implementation of a land-responsive approach. The mention of the formal curriculum and institutional challenges leads me to my final discussion section.

5.4 Meeting the challenges

The perspective of relational materialism is very valuable and needs to be considered in the discussion about learning with the land. However, as I am trying to find a practical approach for implementing a land-responsive approach in the formal education system, from a pragmatic point of view, I have to discuss this topic also in an institutional framework with its curriculum and the whole education system. Therefore, the last part of my discussion relates primarily to the second sub-question of my research question which is: What are the didactical challenges in land-responsive education? In addressing these didactical challenges, I refer to the overarching institutional factors that present challenges and problems in many ways when it comes to implementing a land-responsive approach to education, as presented in my findings.

Also in wild pedagogies, "the relevance of learning with rather than about the natural world" (Jickling et al., 2018, p. 164) is gaining more attention. In this context, the conflict with the current educational system is also noted here, which arises, among other things, from the fact that learning with the land does not involve defined outcomes and measured results, on which the current formal system is based. The curriculum and the formal education system, in general, lack support and guidance for the practical implementation of land-responsive education, as all participants in my interviews stated. Participant 3 suggested in the interview that the curriculum should be scrutinized to find opportunities and loopholes for practical implementation. Aikens (2021) takes a similar view regarding environmental education in general, which I see as overarching land-responsive education. She suggests a balance between strategic engagement and avoiding formal policy structures to effect change in the system.

In the broader field of environmental education, Anderson and Jacobson (2018) have conducted a review of barriers to environmental education in schools. Even in this broader context, most barriers are due to institutional factors, with particular attention to a lack of teaching and preparation time for educators. Lack of time is an aspect that was mentioned several times in the interviews, regarding the schedules and timetables that leave little room for time-consuming but less productive land-based activities. Time is also a touchstone for environmental educators in the paper from Jickling et al. (2018) on wilderness education. They emphasize that time is needed to build meaningful and deep relationships with the more-than-human. More precisely, much time should be spent “immersed in, dialoguing with, and learning with the natural world“ (Jickling et al., 2018, p. 167). This also supports the argument that the participants mentioned several times that practical experience is needed.

Participant 4 is concerned about the expectations of education that the system and society impose on educators, putting pressure on them to fulfill them. She sees society's expectations above all as expectations of a certain kind of productivity that is directly linked to the economy, as Weber (1930) confirms. He states that these expectations are rooted in cultural beliefs.

Since land-responsive education is not about producing anything in the capitalist sense, nor is it based on that kind of conviction, the challenges facing educators in this field are immense. To counter these prevailing values and beliefs that characterize society and its expectations, the Earth Charter (Earth Charter Commission, 2000), as outlined above, can help to establish an ethic that not only deals with economic issues but also takes environmental and social aspects into account. Participant 3 sees this as a valuable basis that could provide an ethical foundation for land-responsive education. Principle 14 in particular refers specifically to the education sector. Even though I have already presented this principle in Chapter 2.4, I consider it important to present it again in its entirety here in the discussion, as it can now be viewed from a new perspective with the background of the findings and the previous discussion.

Integrate into formal education and life-long learning the knowledge, values, and skills needed for a sustainable way of life.

a. Provide all, especially children and youth, with educational opportunities that empower them to contribute actively to sustainable development.
b. Promote the contribution of the arts and humanities as well as the sciences in sustainability education.
c. Enhance the role of the mass media in raising awareness of ecological and social challenges.

d. Recognize the importance of moral and spiritual education for sustainable living. (Earth Charter Commission, 2000, p. 4)

It supports land-responsive education as an approach to learning for a sustainable way of life. As is also noted here in this principle, learning refers not only to skills and knowledge but also to values that go hand in hand with moral and spiritual aspects (d.). These values are necessary to build and maintain a sustainable human-nature relationship. Principle 14 also states that this type of education for sustainable development should also be integrated into the formal education context. Accordingly, diverse fields of knowledge should also be embedded (b.), which includes the recognition of different ways of knowing. However, it also recognizes the ecological and social challenges ahead and suggests using the mass media as a means of drawing attention to them (c.). My findings reflect all of the requirements encapsulated in just this one principle and also coincide with my observations and literature review.

6 Conclusions

In the last Chapter of my master's thesis, I will summarise my research and results in the first part by answering the research questions. Here, as already shown in Chapter 2, I will also point out some of the limitations of my work. In the second part, I will present some implementations and suggestions for the realization of land-responsive education that have emerged from my research. The fact that my work is part of an action research project makes the proposed implementations even more relevant.

In my master's thesis, I wanted to explore an innovative, holistic approach to education that deals with the human-nature relationship and sustainable living on Earth. I wanted to explore the possibilities of teaching and learning in and with the land from a teacher's perspective in a formal education system. As the land plays an important role in a land-responsive approach, an attempt was made to capture this role of the land in particular. In addition, as the approach is quite different from prevailing educational approaches, some didactic challenges within the system were expected to be identified.

I have chosen a qualitative research design to answer my research questions and conducted participatory action research as part of the international research project “Learning with the Land”. In the following, I will summarize my findings.

Firstly, my research provided a picture of the role of the land in teaching and learning in land-responsive education. According to my informants, the land is one of many actors in a network of actors. Understanding land as an actor that has agency helps to understand the role of land as a teacher in a land-responsive education context. In addition, and concerning the land as an actor, participants highlighted the interconnectedness and interdependence of people, nature, culture and the land, as expressed in their engagement with the land. As a result, a learning process takes place through engagement and interaction with the land. In seeking a practical approach to holistic education in and with the land, both traditional and modern ways of knowing should be considered and combined to complement each other. As traditional knowledge is based on a deeper mutual understanding of the human-nature relationship, including spiritual components, it is of great value to complement the more rational scientific perspective of modern knowledge. Examples such as the concept of reciprocal restoration can provide guidance on how to combine traditional and modern knowledge. The concept of place-responsive education also helps to better understand how to practice responsiveness in education. Thus, the implementation of a land-responsive approach in formal education is associated with many challenges. Institutional factors such as curricula, expectations and time constraints are perceived as barriers to this. However, the Earth Charter can provide an ethical framework for a land-responsive approach.

In presenting my findings, I must recognize that with four interviews, two focus groups and some participant observation, my research does not provide enough data to draw a generalizable conclusion. Due to the scope of this 30 ECTS master's thesis, time was limited and did not allow me to delve deeper into the research to achieve more meaningful and richer results. For this reason, the limitations of this work have already been discussed in Chapter 3.4.3.

Another aim of this research was to contribute to the international research project “Learning with the Land” and to better understand how to teach and learn in and with the land. As part of the action research process, I would like to propose some implementations that could advance a land-responsive approach in the current formal education system. These proposals need to be tested, evaluated and developed further, as the action research cycle goes on. Nevertheless, based on my findings, I propose the following principles that should guide land-responsive education:

1) Recognize the land as more than physical and recognize its agency
2) Recognize the land as a teacher and the formal teacher as a co-teacher
3) Recognize the interconnectedness of all matter and acknowledge the reciprocity between humans and nature
4) Combine traditional and modern ways of knowing in teaching and learning
5) Use the Earth Charter as an ethical foundation

These suggestions could help guide the implementation of land-responsive education into the formal education system. However, as there are many challenges to be faced in the implementation of land-responsive education, I will quote Participant 1 as a final piece of advice:

We have to rethink and reimagine perhaps what formal education is, what education is. And reimagining an education where there is much more engagement with the land in which the school is integral.

7 References

Abram, D. (1996). *The spell of the sensuous: Perception and language in a more-than-human world*. Pantheon Books.

Aikens, K. (2021). Imagining a wilder policy future through interstitial tactics. *Policy Futures in Education*, *19*(3), 269–290. https://doi.org/10.1177/1478210320972578

Anderson, C., & Jacobson, S. (2018). Barriers to environmental education: How do teachers' perceptions in rural Ecuador fit into a global analysis? *Environmental Education Research*, *24*(12), 1684–1696. https://doi.org/10.1080/13504622.2018.1477120

Baker, M. (2005). Landfullness in Adventure-Based Programming: Promoting Reconnection to the Land. *Journal of Experiential Education*, *27*(3), 267–276. https://doi.org/10.1177/105382590502700306

Beery, T., Stahl Olafsson, A., Gentin, S., Maurer, M., Stålhammar, S., Albert, C., Bieling, C., Buijs, A., Fagerholm, N., Garcia-Martin, M., Plieninger, T., & M. Raymond, C. (2023). Disconnection from nature: Expanding our understanding of human–nature relations. *People and Nature*, *5*(2), 470–488. https://doi.org/10.1002/pan3.10451

Bocko, P., Jorgenson, S., & Malik, A. (2023). Place-Based Education: Dynamic Response to Current Trends. In J. Činčera, B. Johnson, D. Goldman, I. Alkaher, & M. Medek (Eds.), *Outdoor Environmental Education in the Contemporary World* (Vol. 12, pp. 137–150). Springer International Publishing. https://doi.org/10.1007/978-3-031-29257-6_9

Bowra, A., Mashford-Pringle, A., & Poland, B. (2021). Indigenous learning on Turtle Island: A review of the literature on land-based learning. *Canadian Geographies / Géographies Canadiennes*, *65*(2), 132–140. https://doi.org/10.1111/cag.12659

Braun, V., Clarke, V., & Weate, P. (2016). Using Thematic Analysis in Sport and Exercise Research. In B. Smith & A. C. Sparkes (Eds.), *Routledge Handbook of Qualitative Research in Sport and Exercise*. Routledge.

Calderon, D. (2014). Speaking back to Manifest Destinies: A land education-based approach to critical curriculum inquiry. *Environmental Education Research*, *20*(1), 24–36. https://doi.org/10.1080/13504622.2013.865114

Cameron, J. (2002). Responding to place in a post-colonial era: An Australian perspective. In W. Adams & M. Mulligan, *Decolonizing Nature: Strategies for Conservation in a Post-Colonial Era* (pp. 172–196). Taylor & Francis Group.

Clarke, V., & Braun, V. (2017). Thematic analysis. *The Journal of Positive Psychology*, *12*(3), 297–298. https://doi.org/10.1080/17439760.2016.1262613

Clugston, R. (2010). Earth Charter Education for Sustainable Ways of Living. *Journal of Education for Sustainable Development*, *4*(2), 157–166. https://doi.org/10.1177/097340821000400202

Clugston, R. M., & Corcoran, P. B. (2023). Ethical and Spiritual Values for Transformative Sustainable Development: The Earth Charter Vision. In K. Beasy, C. Smith, & J. Watson (Eds.), *Education and the UN Sustainable Development Goals* (Vol. 7, pp. 709–731). Springer Nature Singapore. https://doi.org/10.1007/978-981-99-3802-5_39

Cocks, S., & Simpson, S. (2015). Anthropocentric and Ecocentric: An Application of Environmental Philosophy to Outdoor Recreation and Environmental Education. *Journal of Experiential Education*, *38*(3), 216–227. https://doi.org/10.1177/1053825915571750

Cohen, D., & Crabtree, B. (2006, July). *Triangulation*. Robert Wood Johnson Foundation - Qualitative Research Guidelines Project. http://www.qualres.org/HomeTria-3692.html

Corcoran, P. B. (2004a). *The Earth Charter as an Integrative Force for Peace Education and Environmental Education*.

Corcoran, P. B. (2004b). What If? The Educational Possibilities of the Earth Charter. *Educational Studies*, *36*(1), 13. https://doi.org/10.1207/s15326993es3601_9

Creswell, J. W., & Creswell, J. D. (2023). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (6th ed.). SAGE.

Denzin, N. K., & Linclon, Y. S. (2011). Introduction: The Discipline and Practice of Qualitative Research. In N. K. Denzin & Y. S. Linclon (Eds.), *The SAGE Handbook of Qualitative Research* (4th ed., pp. 1–19). SAGE.

Desmoulins, L., Cormier, P., & Armstrong, T. (2023). Learning from Aki through Indigenous Activity-Based Practices. In M. Kress & K. Horn-Miller (Eds.), *Land As Relation: Teaching and Learning Through Place, People, and Practices* (pp. 164–178). Canadian Scholars.

Dewey, J. (2007). *Experience and education*. Touchstone.

Earth Charter Commission. (2000). *The Earth Charter*.

Eira, I. M. G., Jaedicke, C., Magga, O. H., Maynard, N. G., Vikhamar-Schuler, D., & Mathiesen, S. D. (2013). Traditional Sámi snow terminology and physical snow classification—Two ways of knowing. *Cold Regions Science and Technology*, *85*, 117–130. https://doi.org/10.1016/j.coldregions.2012.09.004

Gruenewald, D. A. (2003). Foundations of Place: A Multidisciplinary Framework for Place-Conscious Education. *American Educational Research Journal*, *40*(3), 619–654. https://doi.org/10.3102/00028312040003619

Guba, E. G., & Lincoln, Y. S. (1994). Paradigms of Qualitative Research. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage Handbook of Qualitative Research* (1st ed., pp. 105–117). Thousand Oaks: SAGE Publications.

Haraway, D. J. (2016). *Staying with the trouble: Making kin in the Chthulucene*. Duke University Press.

Haukeland, P. I., & Lund-Kristensen, H. (2019). Den livskraftige barnehagen: En økopedagogisk-filosofisk tilnærming. *Studier i Pædagogisk Filosofi*, *8*(1), 69–89. https://doi.org/10.7146/spf.v8i1.113923

Hill, A., Morse, P., & Dyment, J. (2019). A critical examination of the place of interviews in outdoor studies research. In B. Humberstone & H. Prince (Eds.), *Research Methods in Outdoor Studies* (1st ed., pp. 57–67). Routledge. https://doi.org/10.4324/9780429199004-6

Hultman, K., & Lenz Taguchi, H. (2010). Challenging anthropocentric analysis of visual data: A relational materialist methodological approach to educational research.

International Journal of Qualitative Studies in Education, *23*(5), 525–542. https://doi.org/10.1080/09518398.2010.500628

Humberstone, B., & Riddick, C. C. (2020). Ethical issues and practicalities in outdoor studies research. In *Research methods in outdoor studies* (pp. 21–32). Routledge, Taylor & Francis Group.

Irwin, R. L. (2013). Becoming A/r/tography. *Studies in Art Education*, *54*(3), 198–215.

Jickling, B., Blenkinsop, S., Morse, M., & Jensen, A. (2018). Wild Pedagogies: Six Initial Touchstones for Early Childhood Environmental Educators. *Australian Journal of Environmental Education*, *34*(2), 159–171. https://doi.org/10.1017/aee.2018.19

Kamberelis, G., & Dimitriadis, G. (2011). Focus Groups: Contingent Articulations of Pedagogy, Politics, and Inquiry. In N. K. Denzin & Y. S. Linclon (Eds.), *The SAGE Handbook of Qualitative Research* (4th ed., pp. 545–561). SAGE.

Keskitalo, P. (2023). Honouring Sámi Children’s Agency through Land-Based Education. In M. Kress & K. Horn-Miller (Eds.), *Land As Relation: Teaching and Learning Through Place, People, and Practices* (pp. 179–194). Canadian Scholars.

Kimmerer, R. (2011). Restoration and Reciprocity: The Contributions of Traditional Ecological Knowledge. In D. Egan, E. E. Hjerpe, & J. Abrams (Eds.), *Human Dimensions of Ecological Restoration* (pp. 257–276). Island Press/Center for Resource Economics. https://doi.org/10.5822/978-1-61091-039-2_18

Kimmerer, R. W. (2013). *Braiding sweetgrass: Indigenous wisdom, scientific knowledge and the teachings of plants* (1st ed.). Milkweed Editions.

Kumar, R. (2019). *Research methodology: A step-by-step guide for beginners* (5th ed.). SAGE.

Kuokkanen, R. (2005). LAHI and ATTALDAT: the PHILOSOPHY of the GIFT and SAMI EDUCATION. *The Australian Journal of Indigenous Education*, *34*, 20–32.

Larsen, S. C., & Johnson, J. T. (2017). *Being Together in Place: Indigenous Coexistence in a More Than Human World*. University of Minnesota Press. https://doi.org/10.5749/j.ctt1pwt81r

Latour, B. (2005). *Reassembling the social: An introduction to actor-network-theory*. Oxford University Press.

LeBlanc, N., Davidson, S. F., Ryu, J. Y., & Irwin, R. L. (2015). Becoming through a/r/tography, autobiography and stories in motion. *International Journal of Education Through Art*, *11*(3), 355–374. https://doi.org/10.1386/eta.11.3.355_1

Madden, B. (2015). Pedagogical pathways for Indigenous education with/in teacher education. *Teaching and Teacher Education*, *51*, 1–15. https://doi.org/10.1016/j.tate.2015.05.005

Mannion, G., Fenwick, A., & Lynch, J. (2013). Place-responsive pedagogy: Learning from teachers' experiences of excursions in nature. *Environmental Education Research*, *19*(6), 792–809. https://doi.org/10.1080/13504622.2012.749980

McNiff, J. (2013). *Action Research: Principles and Practice* (3rd ed.). Routledge.

McNiff, J., & Whitehead, J. (2010). *You and your action research project* (3rd ed.). Routledge.

Meløe, J. (1988). The Two Landscapes of Northern Norway. *Inquiry*, *31*(3), 387–401. https://doi.org/10.1080/00201748808602163

Mikaels, J. (2018). Becoming a Place-Responsive Practitioner: Exploration of an Alternative Conception of Friluftsliv in the Swedish Physical. *Journal of Outdoor Recreation, Education, and Leadership*, *10*(1), 3–19. https://doi.org/10.18666/JOREL-2018-V10-I1-8146

Mikaels, J. (2019). Becoming-place: A rhizomatic exploration of friluftsliv in the Swedish school curriculum. *Curriculum Perspectives*, *39*(1), 85–89. https://doi.org/10.1007/s41297-019-00065-5

Norman, M. E., Hart, M., & Mason, G. (2020). Restor(y)ing Place: Indigenous Land-based Physical Cultural Practices as Restorative Process in Fisher River Cree Nation (*Ochékwi Sipi*). In B. Wilson & B. Millington (Eds.), *Research in the Sociology of Sport* (pp. 85–101). Emerald Publishing Limited. https://doi.org/10.1108/S1476-285420200000013005

O'Connor, K. (2020). Developing a STEAM Curriculum of Place for Teacher Candidates: Integrating Environmental Field Studies and Indigenous Knowledge Systems. In

M. Corbett & D. Gereluk (Eds.), *Rural Teacher Education* (pp. 257–277). Springer Singapore. https://doi.org/10.1007/978-981-15-2560-5_13

Peden, S., & Wallin, D. (2020). Onikaniwak: Land-Based Learning as ReconcilACTION. In M. Corbett & D. Gereluk (Eds.), *Rural Teacher Education* (pp. 245–256). Springer Singapore. https://doi.org/10.1007/978-981-15-2560-5_12

Poland, B., Mashford-Pringle, A., & Bowra, A. (2020). Many lenses for planetary health: Seeding citizen engagement for sustainable futures visioning with new ways of seeing. *Canadian Journal of Public Health*, *111*(6), 901–911. https://doi.org/10.17269/s41997-020-00424-0

Sami Parliament Report (Ed.). (2009). *The Sami Parliament´s Living Environment Program: EALLINBIRAS*. Sami Parliament Report.

Scully, A. (2020). Land and Critical Place-Based Education in Canadian Teacher Preparation: Complementary Pedagogies for Complex Futures. In M. Corbett & D. Gereluk (Eds.), *Rural Teacher Education* (pp. 227–244). Springer Singapore. https://doi.org/10.1007/978-981-15-2560-5_11

Skogvang, B. O. (2021). Development of Cultural and Environmental Awareness Through Sámi Outdoor Life at Sámi/Indigenous Festivals. *Frontiers in Sports and Active Living*, *3*, 662929. https://doi.org/10.3389/fspor.2021.662929

Skuce, T., & Pelech, S. (2020). *A Pedagogical Venturing into the Three Sisters' Garden: Lessons of Attunement and Reciprocity in Education*.

Smith, B., & Sparkes, A. C. (2016). Interviews: Qualitative interviewing in the sport and exercise sciences. In B. Smith & A. C. Sparkes (Eds.), *Routledge Handbook of Qualitative Research in Sport and Exercise* (0 ed., pp. 103–123). Routledge. https://doi.org/10.4324/9781315762012

Smith, L. T. (2021). *Decolonizing methodologies: Research and indigenous peoples* (3rd ed.). Zed Books.

Stansberry, S. L., McDowell, S. B., Ivey, T. A., Hathcock, S. J., Utley, J., Gardner-Vandy, K. G., & Just, A. (2023). A Systematic Mapping Study of Place- and Land-Based Learning with Indigenous Populations in K-12 STEM Education. *Journal of*

Formative Design in Learning, *7*(2), 158–170. https://doi.org/10.1007/s41686-023-00079-3

Stewart, A. (2004). Decolonising encounters with the Murray River: Building place responsive outdoor education. *Journal of Outdoor and Environmental Education*, *8*(2), 46–55. https://doi.org/10.1007/BF03400803

Streit, D., & Mason, C. W. (2017). Traversing The Terrain of Indigenous Land-Based Education. In M. A. Robidoux & C. W. Mason (Eds.), *A Land Not Forgotten* (pp. 85–123). University of Manitoba Press. https://doi.org/10.1515/9780887555176-007

Styres, S. D. (2011). Land as first teacher: A philosophical journeying. *Reflective Practice*, *12*(6), 717–731. https://doi.org/10.1080/14623943.2011.601083

Styres, S., Haig-Brown, C., & Blimkie, M. (2013). Towards a Pedagogy of Land: The Urban Context. *Canadian Journal of Education*, *36*(2), 34–67.

Tuck, E., McKenzie, M., & McCoy, K. (2014). Land education: Indigenous, post-colonial, and decolonizing perspectives on place and environmental education research. *Environmental Education Research*, *20*(1), 1–23. https://doi.org/10.1080/13504622.2013.877708

Wattchow, B., & Brown, M. (2011a). *A pedagogy of place: Outdoor education for a changing world*. Monash University Publishing.

Wattchow, B., & Brown, M. (2011b). The Emergence of Place in Outdoor Education. In *A pedagogy of place: Outdoor education for a changing world* (pp. 77–105). Monash University Publishing.

Weber, M. (1930). *The Protestant Ethic and the Spirit of Capitalism* (2nd ed.). Routledge.

Wildcat, D. R. (2013). Introduction: Climate change and indigenous peoples of the USA. *Climatic Change*, *120*(3), 509–515. https://doi.org/10.1007/s10584-013-0849-6

Wildcat, M., McDonald, M., Irlbacher-Fox, S., & Coulthard, G. (2014). Learning from the land: Indigenous land based pedagogy and decolonization. *Decolonization: Indigeneity, Education & Society*, *3*(3), 1–15.

Wilkinson, S. (2004). Focus Group Research. In D. Silverman (Ed.), *Qualitative Research: Theory, Method and Practice* (2nd ed., pp. 177–199). SAGE.

World Commission on Environment and Development. (1987). *Our common future*. Oxford University Press.

Yan, L. (2023). Learning with the land: How sixth graders restory interactions with the land through field experiences. *Learning, Culture and Social Interaction*, *42*, 1–11. https://doi.org/10.1016/j.lcsi.2023.100754

8 Annexes

Annex 1: Information letter, including consent form

Are you interested in taking part in the research project *“Learning with the Land: A teacher perspective on indigenous and land-based education in Norway”?*

Purpose of the project
This Master Thesis aims to understand what it entails to learn with the land from a teacher's perspective concerning indigenous and land-based education. The thesis is part of the Nordic Master in Friluftsliv and contributes to the international research project called “Learning with the Land”, which is a collaboration between researchers from Canada, Australia and Norway. To explore the land-based aspects of indigenous and land-based education and to capture what learning with the land entails from a teacher´s perspective, my research is guided by the following questions:

What does it entail to learn with the land from the perspective of teachers, and in what way does learning with the land contribute to indigenous and land-based education?

a. In what way does the land participate in teaching and learning?
b. How can the Earth Charter contribute to a land-based education?
c. What methodological challenges are there in teaching and learning with the land?

Which institution is responsible for the research project?
The University of South-Eastern Norway (USN) is responsible for this master thesis project, which is carried out by Imke Wichelhaus and supervised by Per Ingvar Haukeland.

Why are you being asked to participate?
The research project is aimed at professional teachers who are interested in learning with the land and teaching in various educational institutions. USN identifies suitable participants. The project aims to involve five participants, each with a slightly different background.

What does participation involve for you?
If you choose to take part in the project, this will involve you taking part in an interview. It will take approx. 60 minutes. The interview will include questions about your professional background, understanding, teaching and learning objectives concerning indigenous and land-based education and learning with the land. You will also be asked about challenges that may arise in practice. Your answers will be recorded electronically.

Participation is voluntary
Participation in the project is voluntary. If you choose to participate, you can withdraw your consent at any time without giving a reason. All information about you will then be made anonymous. There will be no negative consequences for you if you choose not to participate or later decide to withdraw.

Your personal privacy – how we will store and use your personal data
I will only use your personal data for the purpose(s) specified here and I will process your personal data in accordance with data protection legislation (the GDPR).

- Me and my supervisor will have access to the personal data.
- To ensure that no unauthorized persons are able to access the personal data, I will replace your name and contact details with a code. The list of names, contact details and respective codes will be stored separately from the rest of the collected data. The data will be stored on the server of USN and protected by their IT services.
- The recorded interviews will be transcribed by using the software NVivo.

What will happen to your personal data at the end of the research project?
The planned end date of the project is Mai 16, 2024. Your personal data will be anonymized, and digital recordings will be deleted at the end of the project.

Your rights
So long as you can be identified in the collected data, you have the right to:

- access the personal data that is being processed about you
- request that your personal data is deleted
- request that incorrect personal data about you is corrected/rectified
- receive a copy of your personal data (data portability), and
- send a complaint to the Norwegian Data Protection Authority regarding the processing of your personal data

What gives us the right to process your personal data?
We will process your personal data based on your consent.
Based on an agreement with USN, the Data Protection Services of Sikt – Norwegian Agency for Shared Services in Education and Research has assessed that the processing of personal data in this project meets requirements in data protection legislation.

Where can I find out more?
If you have questions about the project or want to exercise your rights, contact:

- USN via Prof. Per Ingvar Haukeland, by telephone: +47 35 95 26 84 or by email: per.i.haukeland@usn.no
- Master student Imke Wichelhaus by telephone: +49 157 30664972 or by email: 258696@student.usn.no
- Data Protection Officer at USN Paal Are Solberg by telephone +47 35 57 50 53 or by email: Paal.A.Solberg@usn.no

If you have questions about how data protection has been assessed in this project by Sikt, contact:

- email: personverntjenester@sikt.no or by telephone: +47 73 98 40 40

Yours sincerely,

Prof. Per Ingvar Haukeland
(supervisor)

Imke Wichelhaus
(master student)

Consent form

I have received and understood information about the project *Learning with the Land* and have been given the opportunity to ask questions. I give consent:

- to participate in a recorded interview.
- for my personal data to be processed until the end of the project, Mai 16, 2024.

(Signed by participant, date)

Learning with the Land:
A teacher perspective on indigenous and land-based education in Norway

Master Thesis Project

This Master Thesis aims to understand what it entails to learn with the land from a teacher's perspective concerning indigenous and land-based education. The thesis is part of the Nordic Master in Friluftsliv and contributes to the international research project called "Learning with the Land", which is a collaboration between researchers from Canada, Australia and Norway. Therefore, the thesis addresses the Norwegian perspective by diving deeper into indigenous and land-based education in Norway, trying to capture the land-based aspects and shed light on what learning with the land means from the teachers' perspective.

Research Questions

What does it entail to learn with the land from the perspective of teachers, and in what way does learning with the land contribute to indigenous and land-based education?

a) In what way does the land participate in teaching and learning?
b) How can the Earth Charter contribute to a land-based education?
c) What methodological challenges are there in teaching and learning with the land?

Interview Guide

Background Questions

1) What is your current position and what are your responsibilities?
2) What are your background, education and work experience?

Understanding

3) How do you understand "indigenous and land-based education", which is an aim of the project? What are the connections between indigenous and land-based education, and in what way can they coincide or contradict each other?
4) What does learning with the land mean to you and what does land in that context mean to you? Can you give some examples?
5) How is the "land" an expression of nature, as well as of culture and humans?

Teaching

6) What relevance do you see in your teaching for learning with the land, and what is your motivation for teaching with a land-based approach?
7) What is more or less difficult in learning with the land in your teaching?
8) Which methods/theories do you use to teach and learn with the land? Can you give some examples of practices you are using in your teaching?

Land as a teacher and the role of the teacher

9) How can the land be a teacher and how can the land direct the learning process? Give examples.
10) Can you describe the role of the teacher in indigenous and land-based education? What do you do? Can you give examples of when the land teaches?
11) What are the consequences for you as an educator if you recognize land as a teacher?
12) What challenges do you see in the role of a teacher connecting people to the land?

Learning

13) What do you want the students to learn when it comes to the land?
14) Can you say what the desired learning outcome at the end is for you?
15) In what way does a student/person's history play a role in learning with the land?

Challenges

16) How are we to develop a responsiveness to indigenous perspectives while at the same time open to "outsider" perspectives and letting the land itself teach?
17) In what way can we avoid appropriating indigenous cultural ways, while at the same time learning from indigenous cultures?
18) How can one combine traditional (indigenous) and modern ways of teaching and learning with the land?
19) What do you see are the main challenges for institutional formal education, such as kindergartens/schools to implement a land-based educational program, and what can be done about them?

20) What advice do you give to ongoing teachers regarding their role as a teacher in this context?
21) If you were a principal or leader of a kindergarten/school, how would your kindergarten or school look like: try to be both specific and general, related both to concrete challenges and possibilities.
22) Is there anything else you would like to add from your experience as a teacher educator?

Thank you for participating and sharing your perspective.