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# Master's Thesis Promoting Environmental Awareness and Critical Literacy Using the Picturebook Like the Ocean We Rise

Fremme miljøbevissthet og kritisk lesekompetanse gjennom bildebildeboken *Like the Ocean We Rise* 

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Hamar, May 2024 Kristine Lundby

## Abstract

Education plays an important role in developing awareness of sustainable development among pupils. One of the core values in the Norwegian curriculum is "respect for nature and environmental awareness" (Ministry of Education and Research, 2017) which highlights that through schooling the pupils shall develop climate and environmental awareness. Moreover, the Norwegian curriculum emphasises the importance of empowering pupils to act ethically with environmental awareness and to make responsible decisions that benefit the environment (Ministry of Education and Research, 2017). Rooted in the curriculum, this master's thesis addresses how the picturebook Like the Ocean We Rise (Edwards & Wilkins, 2021) can be used to promote environmental awareness and critical literacy in the classroom. This was investigated through a lesson study in collaboration with one English teacher working in Year 5 and another master's student (Karhu, 2024), where we planned, tested out, revised, and evaluated a lesson plan focusing on the promotion of environmental awareness and critical literacy. The lesson study encompassed classroom observations and focus-group interviews with pupils, and aimed to address the research questions: "In what way can the picturebook Like the Ocean We Rise be used in a Year 5 classroom as part of a lesson study project focusing on environmental awareness and critical literacy?", "In what way do the pupils engage with this literary text and its pictures?" and "What are the pupils' perspectives on using picturebooks to learn about sustainable development?"

Throughout this master's thesis, I delve into theories concerning ecopedagogy, the use of literature in the classroom, and multimodal and critical literacy to discuss my findings. The result from this study indicates that most of the pupils liked working with *Like the Ocean We Rise*. The pupils actively interacted with the picturebook, using their multimodal and critical literacy to expand their environmental awareness. The interactive discussions resulted in critical thoughts about the picturebook and topic. Moreover, the results indicate that using picturebooks to learn about sustainable development can make the content more accessible for all pupils due to visual support. This master's thesis is a contribution to the field of literature-based ecopedagogy, offering insights into the practical implications of using one picturebook in teaching to foster critical literacy and environmental awareness among pupils learning English as a foreign language.

## Sammendrag

Utdanning har en viktig rolle i å utvikle bevissthet om bærekraftig utvikling blant elevene. Et av opplærings verdigrunnlag i den norske læreplanen er "respekt for naturen og miljøbevissthet" (Kunnskapsdepartementet, 2017), som understreker at gjennom skolegangen skal elevene utvikle klima- og miljøbevissthet. Videre vektlegger den norske læreplanen betydningen av å gjøre elevene i stand til å ta ansvarlige valg og handle etisk og miljøbevisst (Kunnskapsdepartementet, 2017). Forankret i lærerplanen, handler denne masteroppgaven om hvordan bildeboken Like the Ocean We Rise (Edwards & Wilkins, 2021) kan bli brukt for å fremme miljøbevissthet og kritisk leseferdighet i klasserommet. Dette ble undersøkt gjennom en leksjonsstudie i samarbeid med en engelsklærer som jobber i 5. klasse og en annen masterstudent (Karhu, 2024), der vi planla, testet ut, reviderte og evaluerte et undervisningsopplegg med fokus på fremme av miljøbevissthet og kritisk leseferdighet. Leksjonsstudien omfattet observasjoner i klasserommet og fokusgruppeintervjuer med elever, og søker å svare på forskningsspørsmålene: «På hvilken måte kan bildeboken Like the Ocean We Rise bli brukt i en 5. klasse som en del av et leksjonsstudieprosjekt med fokus på miljøbevissthet og kritisk leseferdighet?», «På hvilken måte engasjerer elevene seg med denne litterære teksten og bildene?» og «Hva er elevenes perspektiver på å bruke bildebøker for å lære om bærekraftig utvikling?»

Gjennom denne masteroppgaven vil jeg fordype meg i teorier om økopedagogikk, bruk av litteratur i klasserommet, samt multimodal og kritisk leseferdighet for å diskutere funnene mine. Resultatene fra denne studien indikerer at de fleste av elevene likte å jobbe med *Like the Ocean We Rise*. Elevene samhandlet aktivt med bildeboken, og brukte sin multimodale og kritiske lesekompetanse for å utvide deres miljøbevissthet. De interaktive diskusjonene resulterte i kritiske tanker om bildeboken og tema. I tillegg indikerer resultatene at bruk av bildebøker for å lære om bærekraftig utvikling kan gjøre innholdet mer tilgjengelig for alle elever på grunn av visuell støtte. Denne masteroppgaven bidrar til feltet for litteraturbasert økopedagogikk, og tilbyr innsikt i de praktiske implikasjonene av å bruke en bildebok i undervisningen for å fremme kritisk leseferdighet og miljøbevissthet blant elever som lærer engelsk.

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## 1 Introduction

Education and knowledge are important in a rapidly changing world and pupils need to be aware of global challenges and their roles as responsible citizens in order to preserving life on Earth. According to the Education Act, "pupils [...] must learn to think critically and act ethically and with environmental awareness. They must have joint responsibility and the right to participate" (The Education Act, 1998, §1-1). To make this possible, teachers must help the pupils acquire critical literacy and environmental awareness. The core curriculum emphasises the importance of empowering pupils to act ethically with environmental awareness and to make responsible decisions that benefit the environment (Ministry of Education and Research, 2017). This is linked to environmental humanities, which is an interdisciplinary field that explores the relationship between humans and the environment. In an article about international perspectives and practices of teaching environmental humanities, O'Gorman et al. describe environmental humanities as "an interdisciplinary field of enquiry that brings the insights and approaches of the humanities-centered on questions of meaning, value, and ethics-to bear on some of the most pressing challenges of our time" (2019, p. 428). Solving climate challenges requires more than just scientific knowledge, as it is vital to incorporate knowledge and methods from various disciplines to understand the past, present, and future. An environmental humanities approach provides a more nuanced understanding of environmental challenges by combining data from science with humanities disciplines, such as literature, art, and history, to address environmental issues and human responsibilities. By integrating different fields, a more comprehensive understanding of our world can be achieved.

Education for Sustainable Development (ESD) is a concept within environmental humanities that aims to equip learners with the knowledge, skills, and values required to confront global challenges, such as climate change. This study will look at how literature can be used in ESD to develop environmental awareness and critical literacy. The chosen literature for this project is the picturebook *Like the Ocean We Rise*, which explores how human actions affect the Earth and provides suggestions of how we all can contribute to a positive change (Edwards & Wilkins, 2021). Literature is a powerful tool for fostering ethical awareness, and including literature addressing ecological concepts in teaching can make pupils aware of environmental challenges and prepare them to deal with such challenges in the future. This thesis will delve into the pedagogical possibilities of using the picturebook to enhance pupils' multimodal literacy while fostering critical literacy and awareness about climate challenges and the environment.

This master's thesis is part of the upcoming project titled *Literature, Teacher Education and the Climate-ready Classroom* (L-TECC). L-TECC aims to create climate-ready classrooms by using literary texts addressing climate change and sustainable development in primary and secondary education. The project will involve the L-TECC project researchers, a Ph.D. candidate and Master students from INN, teachers, and pupils from partner schools in Norway, Sweden, as well as the US and international project partners and board members (Kleppe, et al., 2023, p. 8). L-TECC aims to explore how different forms of literature, empowering techniques, and environmental and literary approaches can be used to promote environmental awareness and pupils' willingness to protect life on Earth. I hope that this master's thesis will serve as a valuable addition to their project with its primary objective to explore how one picturebook can promote environmental awareness and foster critical literacy among pupils.

#### 1.1 Research Questions

The main research question for this master's thesis is:

In what way can the picturebook *Like the Ocean We Rise* be used in a Year 5 classroom as part of a lesson study project focusing on environmental awareness and critical literacy?

To further investigate critical literacy and the use of picturebooks in the classroom, I have two subordinate research questions focusing on pupils' engagement and perspectives:

- 1. In what way do the pupils engage with this literary text and its pictures?
- 2. What are the pupils' perspectives on using picturebooks to learn about sustainable development?

To investigate the respective objective and to answer my research questions, I have chosen lesson study as a method. In this lesson study, we created a lesson plan based on one picturebook that can enable English teachers to address climate change and develop critical literacy in the classroom. The collection of data was done in collaboration with another master's student from INN. We have written two different master theses, where my co-student focused on how extracts from the picturebook enhanced pupils knowledge, environmental awareness agency and critical reflections on environmental issues (Karhu, 2024), and my focus was on how the pupils engaged with the picturebook based on their multimodal and critical literacy and how

the whole picturebook can contribute to the development of environmental awareness. The current lesson study will incorporate classroom observations and focus-group interviews with pupils as integral components to address the research questions.

#### 1.2 Thesis Structure

This thesis is structured through seven chapters. In the first chapter, the context and objectives of the study have been presented. It introduces the thesis topic and outlines the research questions alongside a brief summary of the chosen research method. The second chapter delves into the background of why this research is relevant and important. This includes an examination of the topic of sustainable development in the Norwegian Curriculum, the approach of Education for Sustainable Development, and UNESCO's report on climate-ready classrooms. Chapter three presents the theoretical framework and previous research that underpin this research. Environmental awareness is explored within ecopedagogy and ecocriticism alongside critical literacy including literature in the classroom, picturebook theory, multimodal literacy, and critical thinking skills through an approach called Critical Thinking and Book Talk. These theoretical perspectives serve as lenses when analysing the data as well as in the discussion. The fourth chapter explains the method used in this study, detailing the materials and the implementation of the current lesson study through two learning cycles. Furthermore, the fourth chapter addresses observation and interview as data collection methods and includes a description of how I analysed the data. Additionally, the quality criteria for this research will be discussed along with ethical considerations. In the fifth chapter, the focus shifts to the results and findings of the study. This chapter is organised around themes of "environmental awareness" and "multimodal and critical literacy". The findings form the basis for my discussion, which will be found in the sixth chapter. Chapter six engages in an examination and interpretation of the findings in light of theory and previous research. Divided into sections, it discusses literature-based ecopedagogy and pupils' perspectives and engagement with picturebooks. The final chapter will serve as a conclusion of the whole study. It offers reflections on the implications of this research and future research directions. The reference list and relevant appendices will be at the end of this thesis.

# 2 Background

This chapter will present the background for why the topic of sustainable development is relevant and important to include in school. Firstly, I will introduce how sustainable development is presented in the Norwegian curriculum and discuss the need for knowledge in order to be able to act sustainably. Secondly, the approach of Education for Sustainable development will be presented. There will be an introduction to the approach and its history. Lastly, I will briefly describe some of the findings outlined in the UNESCO (2021) report titled *Getting every school climate-ready*, which investigates how countries are integrating climate change issues into education. This chapter will underline the importance of including sustainable development in teaching, laying the groundwork for my thesis where I delve into how literature can be used to promote sustainable development.

#### 2.1 The Norwegian Curriculum

Sustainable development is a part of the Norwegian curriculum framework, and teachers are obligated to include this in their teaching to help the pupils understand why climate change is happening and what we can do to prevent it from escalating. The core curricular value "Respect for nature and environmental awareness" states that schools shall develop the pupils' climate and environmental awareness. Further, it states that "pupils shall develop awareness of how our lifestyles impact nature and the climate, and thus also our societies. The school shall help the pupils to develop the willingness to protect the environment" (Ministry of Education and Research, 2017, pp. 9-10). In addition to being a core value, respect for nature and environmental awareness is linked to sustainable development which is one of the three interdisciplinary topics in the Norwegian curriculum. According to the curriculum, "[s]ustainable development refers to protecting life on earth and providing for the needs of people who live here now without destroying the possibilities for future generations to fill their needs". Further, the curriculum states that pupils must learn to make responsible choices, and act ethically and with environmental awareness (Ministry of Education and Research, 2017, p. 16). Sustainable development is not included as an interdisciplinary topic in the English subject curriculum, but that does not signify that it cannot be taught within an English lesson. This is an interdisciplinary topic that can be adopted into all the different subjects. It is important to develop an understanding of topics and problems across subjects and disciplines to develop pupils' abilities to solve problems outside of the classroom using knowledge from subjects learned in school.

Sieglinde Grimm and Berbeli Wanning argue that education is the key to protecting the environment, as it can change habits and attitudes towards nature (2016, p. 516). The pupils must learn how our lifestyle affects nature and the climate, and how they can participate in protecting the environment which can be promoted through education. According to Osberg and Biesta, the practices and purposes of education "has received significant attention from those who seek to broaden its focus, for example by seeing education as a basic human right, as can, for example, be seen in UNESCO's positioning of education at the heart of its mission to 'build peace, eradicate poverty and drive sustainable development'" (Osberg & Biesta, 2021, p. 58). They further argue that it is important to consider what education actually is (a human right) and not just the instrumental purposes of measurable learning outcomes. Education is one of United Nations Educational, Scientific and Cultural Organization (UNESCO) top priorities, as it is a human right and the foundation for peace and sustainable development (UNESCO, 2021). Pupils need knowledge about sustainable development to be able to make environmental changes and find solutions to climate challenges. It is important to educate pupils about sustainable development and how they can contribute to positive climate change. By fostering communication skills, problem-solving abilities, and decision-making capabilities, teachers can help pupils become independent learners who are engaged and motivated in both their education and their future. One way of doing this is through Education for Sustainable Development, an approach fostering knowledge and awareness of sustainability and the environment.

#### 2.2 Education for Sustainable Development

Education for Sustainable Development (ESD) is an interdisciplinary approach that aims to empower individuals with the knowledge, values, attitudes, and skills necessary to contribute to a sustainable future. Pupils need knowledge about why this is important to make responsible and thoughtful choices for our planet and learn how to take care of our planet and meet the needs of people today without harming the ability of future generations to meet their needs (Ministry of Education and Research, 2017, p. 16). ESD aims to integrate the principles and practices of sustainability into all aspects of learning for various disciplines and subjects to provide an understanding of sustainability issues. ESD address multiple issues, such as climate change, biodiversity loss, poverty, pandemics, health, and equality, and it is described as a lifelong learning process that must be an integrated part of education to empower learners to make decisions and take action to change society and care for the planet (UNESCO, 2023). The concept of ESD was introduced in Chapter 36 of Agenda 21, which deals with promoting education, public awareness, and training in a comprehensive plan of action made by the United Nations Conference on Environment & Development in 1992. The program areas described in Chapter 36 are reorienting education towards sustainable development, increasing public awareness, and promoting training (United Nations, 1992). The chapter highlights that "[e]ducation is critical for promoting sustainable development and improving the capacity of people to address environment and development issues" and ESD must be an essential part of learning to be able to increase public awareness. An important part of ESD is to fill gaps in knowledge and skills through training to develop human resources and facilitate the transition to a more sustainable world (United Nations, 1992). Due to the importance of education highlighted in the plan of action from 1992, the United Nations Decade of Education for Sustainable Development from 2005 to 2014, and the Global Action Programme on ESD from 2015 to 2019 (UNESCO, 2023), education has become UNESCO's top priority as people need to develop knowledge, skills, values, and attitudes to make informed decisions and responsible actions. The current global framework is ESD for 2030 which emphasises the role of education in contributing to the achievement of the 17 Sustainable Development Goals. These goals include diverse elements of sustainable development. However, education about climate change is the main thematic focus of ESD as it helps learners understand the impacts of climate change and empowers them to act (UNESCO, 2023).

Lack of knowledge is one of the main reasons why we face an environmental crisis with degradation of ecosystems, loss of biodiversity, pollution, poverty, and destruction of essential resources, and we all need to *learn* how to live sustainably through knowledge (de la Fuente, 2022, p. 1). ESD and the 17 Sustainable Development Goals are considered important inclusions in education to promote knowledge of how to live sustainably. Agbedahin (2019, p. 677) states that "[e]ducation can be humanity's most powerful transformation and transformative force; it can also be a conservative force" as people need knowledge to be able to make a change. By including ESD in education, the pupils will acquire important knowledge, skills, attitudes, and values necessary to shape a sustainable world by empowering the pupils to make informed decisions and take responsible actions (Agbedahin, 2019, p. 672). Teaching should empower individuals to think about how they want the future to look and provide possible answers to questions of how to make that future possible and reach the 17 sustainable development goals by 2030. ESD is considered the key factor for changing attitudes and behaviour in forming future generations of citizens (Andersson, 2017, p. 436). Therefore, it is

important to implement ESD in teaching to empower and to make learners understand that everyone can and is responsible to act and protect the planet.

#### 2.3 Climate-ready Classrooms

Sustainable development and environmental awareness are mentioned in the Norwegian curriculum framework, yet Norway is not one of the countries praised by UNESCO for moving toward the goal of climate-ready classrooms. A report titled Getting every school climate-ready from UNESCO (2021) examined how 100 countries, including Norway, are integrating climate change issues into their national curriculum. One of the key findings in the report is that 47 percent of the 100 countries reviewed had no reference to climate change in their framework, the other 53 percent of the national curriculum framework included climate change, but its inclusion was very minimal (UNESCO, 2021, p. 2). The report found that "the countries most likely to include climate change content are those in regions most vulnerable to the impacts of climate change, as opposed to those largely responsible for the emissions causing climate change" (UNESCO, 2021, p. 2). The impact of climate change in Norway is not as drastic as in many other countries, which may be a reason why some teachers might find it difficult to teach sustainable development and explain how to take positive climate action. The report concluded that teachers are not confident in teaching about climate change and explaining its effects. According to a survey of teachers, the findings reveal that nearly 95 percent of the asked teachers found climate change and its effects important to teach, but fewer than 40 percent knew how or felt confident in teaching it (UNESCO, 2021, p. 2). As a result of the findings in this report, UNESCO recommends that teachers and school leaders need to be prepared to teach climate change and underscore the importance of including this topic in teacher education to prepare future (and current) teachers. Additionally, climate education should be integrated across subjects and teachers must be equipped with relevant pedagogies to ensure that learners are "knowledgeable, competent, hopeful and engaged" (UNESCO, 2021, p. 12). Therefore, this study investigated how ecopedagogy could be implemented in the English subject, aiming to foster a climate-ready classroom by empowering pupils with awareness and knowledge about climate change and environmental issues.

# 3 Theoretical Framework and Previous Research

This chapter will include a theoretical framework related to the topics of this thesis. Firstly, I will present environmental awareness as a theoretical concept and further introduce the approach of ecopedagogy and how this is related to ESD and the development of environmental awareness before delving into ecocriticism. Then I will present multimodal and critical literacy, and the use of picturebooks in the classroom. Lastly, I will explain an approach called Critical Thinking and Book Talk, which was used as inspiration when planning this lesson study. In addition to the theoretical framework, I will present relevant studies that provide perspectives on using literature about climate change and the environment. The studies presented are relatively recent and closely linked to the context of this study as they address the use of literature and picturebooks in the English classroom.

#### 3.1 Environmental Awareness

Environmental awareness as a theoretical concept refers to being aware of the environment and how human actions can impact the Earth and can be defined as "people reflecting on their surroundings and on the role they play" (Thor & Karlsudd, 2020, p. 1). Thor and Karlsudd further explain that environmental awareness is a lifelong learning process and the purpose of it is to empower individuals to become environmentally aware and understand the impact of human actions on the environment to be able to understand their own role in relation to protecting our world (2020, pp. 2-3). In alignment with the Norwegian curriculum, environmental awareness is closely linked to sustainable development as sustainability is about protecting life on earth without destroying the possibilities for future generations (Ministry of Education and Research, 2017). By fostering awareness about sustainability, pupils can gain a sense of responsibility which can empower them to make proactive choices that benefit the environment, rather than hurting it. Central to fostering environmental awareness in the classroom is the provision of knowledge and information that deepen pupils' understanding of environmental issues. One way of integrating environmental awareness into the classroom is to adopt an ecopedagogical approach that empowers pupils and encourages them to take an active role in their learning.

#### 3.1.1 Ecopedagogy

Ecopedagogy is an approach to education connected to ESD and environmental humanities, which involves developing awareness and knowledge of the environment and life on Earth. In an article where Greta Gaard (2009) discusses ecopedagogy and children's literature, she uses

the term environmental literacy, a term I have understood to be synonymous with environmental awareness. According to Gaard "ecopedagogy seeks to develop basic environmental literacy, which often means bioregional literacy, developing an understanding of the ways that local, regional, and global ecologies interact for better and for worse" (2009, p. 326). This makes ecopedagogy a pedagogical strategy that focuses on helping the pupils understand the environment and how humans interact with it. Through this approach, the pupils are encouraged to engage critically with environmental issues and to explore the connections between the society and ecological systems. Richard Kahn describes ecopedagogy as an "educational social movement trying to name, reflect upon, and act in ways that ethically accord with the vicissitudes of our current planetary ecocrisis" (2010, p. 26). This is a movement that seeks to promote a collective understanding of ecological concepts through education by providing relevant forms of knowledge grounded in concepts such as sustainability, planetarity, and biophilia (Kahn, 2010, p. 18). Climate scientists have stated that the time for causal actions has passed, and we need to commit to real solutions for the environment if we want to keep living on this planet in an ecologically appropriate manner (Young, 2018, p. 2). This underscores the importance of implementing a pedagogy that addresses climate-related issues that require solutions. The implementation of ecopedagogy in teaching can foster critical literacy and a deeper understanding of the environment by teaching the complexity of our world and helping pupils understand the interactions between nature and culture. This is an essential pedagogy for understanding human impact on the Earth and the connection between human action and the environmental crisis. It is necessary to be able to respond to a crisis. A crisis could be seen as "a moment of decisive intervention, a moment of thorough-going transformation, a moment of rupture" (Hay, 1999, p. 323), and in order to be able to response to and transform a crisis, we need knowledge.

Greg William Misiaszek who is an ecopedagogue argues that "ecopedagogical work (i.e., ecopedagogical teaching, reading, and research) is necessary for deconstructing environmental actions that have harmful effects upon human societies and Earth holistically and for understanding the politics of our actions, as well as for determining sustainable actions in balance with the rest of Nature and within models of justice" (2020a, p. 2). He describes ecopedagogy as a pedagogy "centered on better understanding the connections between human acts of environmental violence and social violence that cause injustices/oppressions, domination over the rest of Nature, and planetary unsustainability" (Misiaszek, 2020a, p. 1). Ecopedagogy aims to deconstruct the continuum of environmental violence and come up with

ways for pupils to make a positive change. By continuum of environmental violence, he explains that humans cause environmental violence because of our own needs and wants (Misiaszek, 2020a, p. 19). It is therefore important to provide education about the destruction of the world based on our actions to be able to transform and respond to the crisis.

Based on the theory presented above, ecopedagogy focuses on a collective understanding of the importance of preserving nature and the Earth by focusing on nature conservation, the effect of human action, and building a sustainable world (Gaard, 2009; Kahn, 2010; Misiaszek, 2020a). Integrating ecopedagogy into the classroom can provide pupils with the necessary tools and knowledge to be actively involved in contributing to a more sustainable future. Through ecopedagogy, pupils can engage in a learning experience which foster environmental awareness and critical literacy by empowering pupils to address environmental issues. Environmental issues are complex and interdisciplinary and are something that can be worked with in many ways. Environmental issues in school are frequently tackled within science or as components of projects. However, the integration of these issues into various subjects can promote a comprehensive understanding of the complexity and connections between environmental issues. According to Misiaszek, "ecopedagogies do not aim to teach students what to think about socio-environmental issues but rather how to deconstruct them through ecopedagogical reading" (2020b, p. 617) and Rebecca L. Young argues that a key solution to preparing young people for climate crises is through a literature-based ecopedagogy (2018, p. 13). It is not enough to be aware of environmental issues, pupils need to develop empathy for the Earth and recognise their moral responsibility to address them. Kathleen Dean Moore and Michael P. Nelson believe that climate change is fundamentally a moral issue that needs a moral response (2012, p. 46), and the morality of right and wrong can be discussed through literature. Young claims that "literature can prompt self-reflection- perhaps leading to actions that unemotional data may not" (2018, p. 19) and it has the potential to inspire change. Young further explains that making literary connections across cultures and identifying with fictional characters in literature can empower pupils to tackle environmental issues. By identifying with characters, evidence suggests that we might learn more about our problems and ourselves through them (Young, 2018, p. 20). Reading literature about the environment can not only help pupils develop empathy, but it can also help them gain valuable insights into environmental issues, fostering a deeper understanding and motivation to act. In the following, I introduce ecocriticism which is highly relevant when including literature in ecopedagogy.

#### 3.1.2 Ecocriticism

The term ecocriticism is the study of the connections between the Earth and literature and is defined as the "study of the relation between literature and environment conducted in a spirit of commitment to environmental praxis" (Buell, 1995, p. 430). Moreover, the subject of ecocriticism encompasses "the study of the relationship of the human and the non-human throughout human cultural history" (Garrard, 2023, p. 5), offering a broad perspective on the interaction between humanity and the world across time. Greg Garrard points out that "[e]cocriticism is unique amongst contemporary literary and cultural theories because of its relationship with the science of ecology. Ecocritics may not be qualified to contribute to scientific debates, but they must nevertheless transgress disciplinary boundaries and develop their own 'ecological literacy' as far as possible" (Garrard, 2023, p. 5). Ecocritics should attempt to understand ecological concepts and theories to their best ability even if they are not trained scientists. Developing ecological literacy can enable individuals to better analyse literary texts about environmental concerns. Ecocriticism involves examining literary texts to understand how they influence and inform the relationship between literature, culture, and the environment. The most relevant analytical approaches to ecocriticism related to this thesis are to examine how nature is represented, how humans impact the environment, and how these representations shape our understanding of the world. Moreover, ecocriticism also offers opportunities for exploring cultural differences, social and political discourse, racism, and health issues, thereby facilitating critical analyses of humans themselves (Özgün & Arargüç, 2021, p. 326). It is however important to mention that ecocriticism does not claim to have all the answers, rather it seeks to understand and remedy environmental crises alongside numerous academic disciplines (Garrard, 2023, p. 4).

There have been multiple studies on how reading, examining, and understanding literature through an ecological lens can influence how individuals see the world. Literature about nature and the environment has evolved throughout the years. It has spanned from nature writing where literature focused on the beauty of untouched nature to anthropogenic writing exploring how human activity impacts the environment and in which ecosystems function, and the increasing concern about environmental decline has resulted in a shift in focus from beauty and charisma to function and processes (Voie, 2017, p. 5). It is important to address environmental problems to make the pupils even more aware of them, and including ecocritical literature in the classroom can connect the pupils with the world as they can gain a deeper understanding of connections between humans and the environment. Nina Goga, et al. (2018) edited a collection

of studies related to ecocritical perspectives of literature in Nordic countries. The contributions in their collection discuss how different environments are framed and mediated within children's and young adult literature and seek to provide views on ecocritical and environmental perspectives (Goga, et al., 2018, p. 19). In addition, Rebecca Young (2018; 2022) and Sofia Ahlberg (2021) have published books thematising teaching literature about the climate crisis. Young argues that "environmental narratives can facilitate conversations about climate science in the classroom" and that stories can foster knowledge toward recognition and lead to informed actions as they encourage the reader to explore patterns of human behaviour (2022, p. 5). To confront climate change, learning must extend into pupils' everyday lives and education should empower young people to see patterns of human behaviour (Young, 2018, p. 6). When including literature about environmental issues the teachers can encourage the pupils to respond to real-world issues by bridging the gap between literature and events unfolding in the world (Ahlberg, 2021, p. 9). Moreover, Hilde Tørnby has written a chapter about perspectives on sustainable development and ecocritical reading stating that "[o]ne way of addressing sustainability is through reading picturebooks that target these ideas directly or indirectly" (2020, p. 81). Analysing how nature is portrayed in picturebooks can be a good strategy to make the pupils critically think about the connection between the environment and humans. The way nature is portrayed in literature is important to the text as nature sometimes "functions as a backdrop, while at other times it plays a more important role, with elements entwined into the narrative itself" (Tørnby, 2020, p. 84). She further points out that a critical question to consider when working with ecocritical reading is "whether nature is included on its own premises or whether humans are superior to nature" (Tørnby, 2020, p. 85). Analysing literature through the lens of ecocriticism and discussing how nature is represented with pupils can contribute to a greater awareness of the environment and how humans interact with nature. Additionally, it can foster critical literacy by making the pupils examine the content and its meaning.

#### 3.2 Multimodal and Critical Literacy

Using literature when teaching and learning English can benefit the pupils in diverse ways, including promoting multimodal and critical literacy. The use of literature is a dynamic and enriching pedagogical practice that exposes the pupils to language, cultures, ideas, and perspectives. The curriculum points out that language learning takes place when working with English texts (Norwegian Directorate for Education and Training, 2019), and including various types of texts in the classroom can provide great learning opportunities and will be beneficial for several reasons. As noted by Brevik and Lyngstad "reading literature develops students"

communication skills, provides them with knowledge of the world, and furthers their understanding of themselves and others" (2020, p. 163). Moreover, incorporating literature into the classroom can foster the joy of reading, imagination, creativity, and knowledge of the world (Brevik & Lyngstad, 2020). Therefore, it can be beneficial to include different types of literary texts as they can provide multiple constructions of meaning in the English language classroom. Within this sub-chapter, I will present theory and previous research on how multimodal and critical literacy can be worked with in the classroom through picturebooks.

#### 3.2.1 Multimodal Literacy

Multimodal literacy refers to the ability to make meaning out of various modes, such as when written-linguistic modes interface with oral, visual, gestural, and other patterns of meaning (Cope & Kalantzis, 2015, p. 3). Gunther Kress and Carey Jewitt, who have both written widely on the topic of multimodality, introduce the term multimodal literacy to describe "that meanings are made, distributed, received, interpreted and remade in interpretation through many representational and communicative modes" (2003, p. 1). The skill of multimodal literacy has become increasingly important as technology and multimedia platforms have become a huge part of our everyday life, and the pupils need to learn how meaning can be conveyed through various modes by learning to decode and interpret each mode. O'Halloran and Lim (2011) argue that "a 'multimodal literate' student must thus be sensitised to the meaning potential and choices afforded in the production of the text, rendering an enhanced ability to make deliberate and effective choices in the construction and presentation of knowledge" (2011, p. 17). Their statement emphasises that pupils need to be aware of the various ways meaning can be conveyed through different modes of communication. By incorporating multimodal literature in the classroom, the pupils will develop their multimodal literacy. Additionally, the multimodal aspect of literature is also represented in the English subject curriculum stating that:

Texts can be spoken and written, printed and digital, graphic and artistic, formal and informal, fictional and factual, contemporary and historical. The texts can contain writing, pictures, audio, drawings, graphs, numbers and other forms of expression that are combined to enhance and present a message. (Norwegian Directorate for Education and Training, 2019)

Moreover, Mari Skjerdal Lysne (2023) argues in her article about literary multimodal literacy in English language education that multimodal literature plays an increasing role in language education, and it is important to consider both the multimodal and aesthetic nature of literary texts to engage with multimodal literature. Reading multimodal literature differs from reading other types of texts as they involve cognitive, motivational, and affective processes (Meier et, al, 2017, as cited in Lysne, 2023, p. 56). Further, Lysne explains that there is an "intersection between knowledge of both literary and multimodal conventions, awareness of contexts, and the individual readers' emotional, cognitive, creative, and social responses" (2023, p. 59). The ability to comprehend various modes of communication is connected to critical thinking as multimodal literature requires us to think critically about the information presented in the various modes. Reading different kinds of text requires the reader to analyse and evaluate the different modes of communication which can enhance the pupils' ability to think critically.

#### 3.2.2 Critical Literacy

Critical literacy is a theoretical approach emphasising that all texts contain value messages constructed by the authors and their worldview, indicating that no text is entirely objective and neutral, and it is therefore important "to consider who constructed the text and for what purpose" (McNicol, 2016, p. 6). A critical literacy perspective posits that education has the potential and responsibility to foster social justice by supporting pupils in understanding how language and power contribute to social relations (Ives & Crandall, 2014, p. 203). This perspective emphasises the importance of empowering learners to critically analyse the complexities of power structures and language within society by interrogating texts and analysing different forms of communication and expressions. According to Luke, some classical questions when working with critical literacy are "What is the "truth"? How is it presented and represented, by whom, and in whose interest? Who should have access to which images and words, text, and discourses? For what purposes?" (2012, p. 4). By asking such questions, critical literacy aims to teach the pupils that texts are never neutral, they are constructed by someone and all texts contain beliefs and messages, which makes it important for pupils to learn to interrogate texts in order to understand how language and power contribute to social relations (Ives & Crandall, 2014, pp. 203-204). Critical literacy refers to how the reader approaches the text, and it is important to bear in mind that each person interprets the message differently. My interpretation of critical literacy is the ability to talk about a text to understand the relation between what is represented and what is reality, in addition to being critical of the information within the text. Including literature about environmental issues in the classroom can be a great way to develop the pupils' critical literacy as this topic includes many aspects that the pupils have heard about and some can relate to. Ahlberg argues that "reading practices

are integral to the development of critical literacy as they question hegemony, analyse normativity, and promote systems thinking and critique of routines" (Ahlberg, 2021, p. 9). It is important to increase the pupils' ability to be critical and to make a judgment of what they are reading, and one way of promoting this is to include picturebooks in the classroom and make the pupils critically reflect on the content and message of the text.

#### 3.2.3 Picturebooks

Picturebooks are a form of multimodal literature that combines the modes of written text and pictures to tell a story or convey information. Birkeland, Mjør, and Teigland define a picturebook as a book with one or more pictures on each page, where the pages collectively form an aesthetic whole (2018, pp. 98-99). Picturebooks are multimodal, as they include two modes of communication that interplay with each other. Reading a picturebook will provide visual support to the pupils and it can help the pupils interpret and understand the story. Using semiotic terminology, picturebooks communicate with two separate sets of signs. Nikolajeva and Scott describe the pictures in picturebooks as complex *iconic signs* and written words as complex *conventional signs*. Further, they describe that the function of the iconic signs is to describe or represent and is often nonlinear as they do not give the reader any direct instruction on how to read them, while the function of the conventional signs is primarily to narrate and is often linear (2006, pp. 1-2).

The relationship between picture and text is referred to as iconotext. There are different ways in which pictures and words interact. Sissil Lea Heggernes provides a concise overview of Nikolajeva and Scott's (2006) classification of iconotext types; *symmetrical, complementary, expanding, counterpoint,* and *sylleptic,* offering an insightful explanation of their classification (2020, pp. 114-115). According to Heggernes, there is a symmetrical iconotext when picture and text narrate the same story. If the illustrations provide additional detail to the verbal text and the different signs fill each other's gap, the iconotext is complementary. When the images expand the verbal text by offering other perspectives on the story, the iconotext is expanding. In the counterpoint picturebooks, the image and text challenge or contradict each other, and in the more uncommon sylleptic picturebooks, the image and text are completely independent of each other (Heggernes, 2020, pp. 114-115). Commonly in picturebooks, the chunks of text on each page tend to be quite short, and the pictures are just as important in conveying the meaning (Birketveit & Williams, 2021, p. 17). Therefore, it is important to discuss the different modes of communication and how they interact with each other when working with picturebooks in

the classroom. This will increase the ability to successfully interpret and use multimodal semiotic resources and multimodal genres, referred to as multimodal literacy (Skulstad, 2020, p. 267). Picturebooks play a crucial role in early childhood development by promoting multimodal literacy, language skills, and the enjoyment of reading. They offer both a reading and a looking experience and can offer great educational value and aesthetic appreciation (Stafford, 2010, p. 26). Pictures and words together can be interpreted in various ways, encouraging the readers to reflect and see connections differently, and Hilde Tørnby states that

Pictures speak to us without words. We look at a picture and respond to it with our thoughts and emotions. We use our eyes to take it in, and sense the meaning of it through our vision. Unspoken words may find their way into our consciousness and the picture's story or text is formed in us. (Tørnby, 2020, p. 16)

Each mode in a picturebook conveys meaning, and by discussing the pupil's interpretations of both written text and pictures when reading a picturebook can develop the pupils' multimodal and critical literacy. Pictures might communicate in different ways for each reader, and including picturebooks in teaching provides many good learning opportunities where the readers can discuss and think critically about the meaning. Picturebooks can serve as a valuable tool for discussing important topics, fostering creativity, and encouraging critical thinking in young readers.

There have been multiple studies of the benefits of including picturebooks in English language teaching. Anna Birketveit (2015) argues in her article about picturebooks that they are a treasure trove in English as a foreign language as they provide visual support. Each double spread has at least one picture, which can enable the learners to understand more advanced text than they usually would. Further, she argues that picturebooks give the reader access to authentic language where picture and text are equally in conveying the meaning, and by reading short picturebook the learners can have a sense of accomplishment as it is satisfying to finish a whole book (Birketveit, 2015, pp. 1-3). A study conducted by Annett Kaminski discussing the impact pictures have on children's understanding of a story discovered that children scanned the pictures when constructing meaning (2013, p. 19) and concluded that picturebooks can provide rich visual experience in language teaching as images can go beyond and add new layers of meaning of the text (2013, p. 35). Moreover, Hilde Tørnby discusses how picturebooks can be an aesthetic pathway in classrooms and why it is important to include different aesthetic works

due to the diversity and differences in a classroom (2020, p. 16). The inclusion of picturebooks in the classroom can enrich the pupils learning experience as the pupils can use their different senses to aesthetically respond to the text. By making the pupils reflect on how the pictures speak to them can foster a connection with the picturebook, thereby enrich their understanding of the aesthetic and the relationship between the picture and the written text. There are different didactic methods to include picturebooks in the classroom, and one of them is to read aloud with and to the pupils.

In this study, the chosen picturebook was read aloud to the pupils, and two relevant studies I came across when it comes to reading aloud are Sylvia Pantaleo's (2020) and Maria Nilsson's (2023). Pantaleo's study focuses on pupils engaging in slow looking and visual analysis when reading picturebooks (2020, p. 40). She explains that "[t]he complexity of the picturebook format requires and rewards slow looking by readers/viewers (Pantaleo, 2020, p. 40). Pantaleo's study underscores the benefits of making the pupils look carefully at artwork when reading, and discuss thoughts and opinions with each other, where the pupils participating in her study expressed their understanding and appreciation of "the importance and potential benefits of engaging in slow looking" (2020, p. 46). Moreover, Nilsson's (2023) study, examines teachers' roles during picturebook read-aloud sessions in primary English language classrooms. Nilsson states that "multimodal narratives foster various kinds of literacies, including visual and critical, boost engagement, and inspire joint negotiation of meaning and target language interaction for communicative purposes" (Nilsson, 2023, p. 44). Based on previous research Nilsson used in her research, she found that many studies suggest that numerous English teachers feel unprepared when it comes to using picturebooks, and the use of picturebooks in teaching is surprisingly rare in primary classrooms (Nilsson, 2023, p. 44). To shed light on how picturebooks and read-aloud are used in English language teaching, she investigated how teachers in Sweden scaffolded and mediated while they read aloud from picturebooks, intending to discuss strategies to make the process of mediating picturebooks more transparent than it currently seems to be. The participants in this research were three experienced teachers of English in three different Swedish primary schools, all teaching in year 5 with learners aged 11-12. Each teacher was asked to choose one picturebook to use in their classroom to read aloud. The researcher observed each read-aloud to investigate the scaffolding and mediating strategies teachers take on as they read from picturebooks (Nilsson, 2023). Nilsson based her study on the theoretical approach introduced by Sipe (2008) explaining teachers' scaffolding roles during read-aloud as: reader; manager and encourager; clarifier or prober; fellow

wonderer or speculator; and extender or refiner, and examined whether this approach is relevant in English language learning (Nilsson, 2023, p. 48). She further explains, based on Sipe's definitions that the role of the *reader* includes acting as a 'tour guide' for the book in addition to reading the print (Sipe, 2008, p. 201; as cited in Nilsson, 2023, p. 51). The role of manager and encounter involves everything from structure and classroom management and the role of *clarifier or prober* is about helping the pupils explore and develop their thinking. Moreover, she explains that the role of *fellow wonderer or speculator* involves making meaning of the text together with the learners, and the fifth role where the teacher functions as an extender or refiner is where the purpose is to explicitly develop learners' literacy skills and expand their 'literary tool kit' (Sipe, 2008, as cited in Nilsson, 2023, pp. 51-55). The study found that the categories introduced were applicable and that all the teachers used each scaffolding strategy in their lessons. In addition to the five categories introduced by Sipe, Nilsson included a sixth category called language enhancer and facilitator as "the target language is both the content and a means for communication" (2023, p. 56). The teacher used their first language to scaffold and involve all the pupils in the storytelling by occasionally including Swedish translation to effectively mediate the story. Even though my thesis does not focus on Sipe's categories, I found this article highly relevant as the chosen picturebook for this study was read aloud with pupils in year five learning English as an additional language. When analysing my data, I recognised that Sipes' categories aligned well and that the teacher participating in my research used many of the scaffolding roles, which will further be explained and discussed in Chapter 6.

By incorporating a diverse section of picturebooks into the classroom, pupils will be exposed to a rich combination of textual and visual elements. Exposure to picturebooks can foster engagement through multiple modes of communication, enriching pupils' understanding and promoting their development of multimodal literacy and critical literacy skills. Picturebooks that address climate challenges can be used as a tool to empower pupils, as stories thematising human behaviour can contribute to climate change (Young, 2022, p. 5). Using picturebooks when teaching about sustainable development and climate challenges can have numerous benefits. Both text and pictures play a major role in picturebooks as written language and visual art form a cohesive unit that exceeds the total value of its individual components (Kapustka & Bright, 2022, p. 31). Pictures can help the pupils understand complex concepts related to sustainable development and climate challenges, as they add more information to the written text. An important reason for using picturebooks is that they have great value as they provide

good opportunities for emotional and active involvement (Munden & Myhre, 2020, p. 126). Using picturebooks when teaching about sustainability and climate change can be a useful tool to make these complex topics more accessible, engaging, and relatable to pupils.

Multiple studies are looking into how picturebooks about the environment can be used in a teaching context. One of them is a study conducted by Ana Cecilia Cad, Susana Liruso, and Pablo E. Requena (2022) which investigated how environmental awareness can be implemented in English language teaching (ELT) through picturebooks. Their study was conducted in Argentina, yet I find it relevant for my thesis as their aim was to look into how picturebooks can be used in English language teaching. Through examples of children's engagement in activities during reading events using a teacher-made picturebook dealing with the environmental issue of wildfire devastation, their article demonstrates how children can make use of non-linguistic resources to understand and interpret the meaning of a story written in a foreign language (Cad, et al., 2022, p. 98). Their study underlines that picturebooks are ideal learning tools in English language teaching when approaching local and global concerns as picturebooks can help contextualise words and foster thinking responses (Cad, et al., 2022, p. 99). In their study, they focused on how visual and verbal texts promoted language development by making the learners respond to the text by presenting two pedagogical inventions with pupils in fifth and sixth grade (children aged 9 to 11 years old). A noticeable finding in this study was that the pupils' interpretations were heavily influenced by the use of colour in the picturebook, and "[c]olours like red, orange and yellow were clearly associated with fire" (Cad, et al., 2022, p. 9). In addition, the shape and texture of the illustrations were used to understand certain phrases (p. 109) and the pictures helped the pupils interpret and understand the story. The picturebook further led to discussions about the global environmental issues of fire and was then seen in a local context in Argentina. The picturebook was also used to foster reflection about the causes and consequences of fire (p. 112), promoting their awareness about environmental issues. In one of the pedagogical inventions, the pupils were asked to use their visual literacy to create a new story within the setting of a fire in the forest. All the stories exemplified the cause of fire and how actions could be made to solve the problems (Cad, et al., 2022, p. 113). The pupils' experience with the picturebook created opportunities for pupils to discuss environmental issues, acquire new words in a second language, and participate in a literary experience around the picturebook. Their study found that working with picturebooks will expose children to multimodal literacy as the pupils will create meaning by making connections between written words, colour, choice of font, and pictures (Cad, et al., 2022, p.

114). Their contribution illustrates how the exploration of one picturebook in English language teaching can promote environmental awareness and lead to contextualised language development. Moreover, Sylvia Pantaleo (2012) conducted a study looking into how Grade 7 pupils responded to and interpreted Shaun Tan's picturebook The Red Tree. Pantaleo argues that using picturebooks can increase pupils' reading motivation, enhance understanding of visual elements, and foster the development of literacy, language, and thinking skills (Pantaleo, 2012, p. 51). The picturebook was read and discussed, and the pupils participating in this research were asked to create their own multimodal text transferring knowledge and understanding of various literary and art elements. This resulted in written responses to the text which communicated the pupils' understanding of the potential for visual images to convey meaning (p. 66) and showed "evidence of 'higher-order literacy proficiencies' as they engaged thoughtfully with ideas, made connections, and interpreted symbolic and thematic messages in The Red Tree" (Pantaleo, 2012, p. 67). Further, Pantaleo explains that the written responses to the text communicated the pupils' active reading of and engagement with the picturebook and that picturebooks should be included in the classroom as they can promote motivation and engagement, which she argues is the fundamental variable in reading achievements (2012, p. 68). This article is relevant to this thesis, as it underscores how picturebooks can be used to create deep reading experiences and require the pupils to actively think about both pictures and written text. Picturebooks can be a great resource for promoting critical literacy and making the children become active readers. In the following, I will discuss how critical thinking as a part of critical literacy can be promoted through literature.

#### 3.2.4 Critical Thinking Through Literature

One of the core values in the curriculum is critical thinking and it states that "teaching and training shall give the pupils understanding of critical and scientific thinking [... and] the pupils must be able to assess different sources of knowledge and think critically about how knowledge is developed" (Ministry of Education and Research, 2017, p. 8). By implementing a critical perspective of literacy in the classroom, pupils can be able to recognise how language is affected by social relations and the aim is to make the pupils examine the power relation in language and recognise that language is never neutral (Behrman, 2006, p. 490). Wells, Morrison, and Lópes-Robertson (2022) have written a study presenting analytical approaches to fostering critical reading and critical literacy skills through picturebooks in an American context. This article presents three analytical approaches to teaching critical reading and critical literacy through picturebooks: critically analysing broad representation, critical visual analysis, and

analysing voices and perspectives in picturebooks. They focus on three approaches but underline that critical reading and critical literacy "are fluid processes that readers engage in simultaneously; they are not necessarily either/or, but rather both/and" (Wells, et al., 2022, p. 193). In their article, they argue that picturebooks "offer a unique opportunity to practice both critical reading and critical literacy because of the interaction between two different informational modes: printed text and visual images" (Wells, et al., 2022, p. 192) as the inclusion of different modes of communication allows the reading to interpret the authors' message by discussing the content. Further, they argue that the accessibility of picturebooks makes them a rich resource for addressing critical literacy (2022, p. 192). They conclude their article by stating that "picturebooks have a unique power to facilitate critical reading and critical literacy skills" and that analytical approaches will deepen readers' connection with these powerful texts (Wells, et al., 2022, p. 198).

Critical thinking means thinking for yourself and it involves active engagement with ideas to think about and conclude if you agree or disagree with the ideas of the text (Roche, 2015, pp. 14-15). Rather than passively accepting the information provided by a text, the reader must actively assess and analyse the ideas in order to process and interpret the content presented. Engaging pupils in interactive discussions while reading picturebooks aloud can foster the development of their critical thinking skills by encouraging them to analyse and reflect on the content and ideas presented. This is linked to the approach Mary Roche refers to as Critical Thinking and Book Talk (CT&BT), which aims to help children develop their oral language or oracy skills through a dialogical approach to critical literacy (Roche, 2022, p. 92). This approach was important in the current lesson study as the pupils were going to discuss the topic of the picturebook based on their own thoughts. When choosing a picturebook for CT&BT, the picturebook must have some relevance to the pupils' lives as "critical literacy begins with exploring issues that prompt children to think and talk about social issues that have meaning for them" (Roche, 2015, p. 16). There are some important underlying values and assumptions when implementing CT&BT in the classroom. The teacher must acknowledge the pupils as real persons and demonstrate a genuine interest in them and a willingness to listen as they construct their understanding and meaning of the world. It is also important to recognise the pupils as "knowers" who have thoughts and ideas worth listening to and who will bring a lot of value to the discussion about the picturebook (Roche, 2015, pp. 19-21). When implementing CT&BT in the classroom, it is important to include the pupils when discussing some ground rules for the teaching session, whereas Roche suggests that participants in a CT&BT must listen and look carefully, think critically, and speak respectfully (2022, p. 93).

One way of including CT&BT in the classroom is through interactive dialogue-based reading aloud. Reading aloud with pupils can have multiple benefits and it is a great way to expose the pupils to the English language. However, reading aloud in itself is not enough as much of the benefit comes from the conversation and discussion about the text (Roche, 2015, p. 57). By including critical thinking skills when reading aloud, the teacher will engage the pupils in authentic dialogue about the book and topic which involves both receptive and productive skills as the pupils must think, listen, speak, reflect, and respond which is central in CT&BT. Roche describes her approach and offers guidance on its implementation, detailing that:

The children sit in a circle, with the teacher sitting with them. The book is displayed slowly via the visualiser or using scans of each page. Children must have time to study the illustrations as the story is read aloud. They then discuss the book, prompted by questions the book has raised for the children or by a question from the teacher/adult, who is a *participant* in the discussion. The children take turns democratically in sharing ideas, agreeing or disagreeing with each other and the teacher. (Roche, 2022, p. 92)

The idea of this approach is for all pupils to share their thoughts based on what they have listened to/read. One aspect of this approach is also to make the pupils aware that we get ideas when we listen to what other people are saying and that the discussion might end up differently depending on what way the talk goes (Roche, 2022, p. 93). In Roches' guidance, the book talk starts after the teacher has read the book, but this approach can be adapted in many ways. A good way to include critical thinking is to stop during the reading session and discuss, explore, and reflect on both pictures and text in the book, and the topic. By including reading stops, the pupils will get time to reflect, and the teacher can ask open-ended questions which can promote critical thinking skills and engagement about the topic. By using both written text and pictures actively during the reading session, the pupils will get a holistic understanding of the book. In the following chapter, I will describe the current lesson study, and how we implemented *Like the Ocean We Rise* to promote environmental awareness and critical literacy through the approach of Critical Thinking and Book Talk.

### 4 Method

This study aimed to investigate the pedagogical potential of *Like the Ocean We Rise* and how this picturebook can be used in the classroom to foster awareness and knowledge about sustainability based on the pupils' multimodal and critical literacy. To achieve this, I chose a qualitative research approach. Qualitative methods aim to collect data to describe and understand human actions and meaning making in their natural context (Postholm & Jacobsen, 2018, p. 113). This research was conducted within the context of a qualitative lesson study project. It was carried out by a team of educators consisting of two researchers writing master theses, and one English teacher working with pupils in year 5. The teacher was chosen in collaboration with L-TECC. The lesson study project for this research extended from late September to early December 2023. It entailed the collaborating process of planning, revising and evaluating the lesson with the teachers, implementing the lesson plan in two classes, and conducting classroom observations and focus group interviews with pupils. These components collectively made it possible to evaluate the lesson and to get insights into the teachers' and pupils' opinions to understand the complexity of their experiences.

This chapter presents the method employed in the current study. Firstly, it will describe the chosen picturebook, including some didactic approaches to how it can be used in a classroom. Secondly, it will present the application of lesson study as a method, how it was implemented through two teaching cycles, and the data collection methods comprising observation and interviews. Lastly, considerations of validity, reliability, generalisation, and ethical concerns are addressed to ensure the integrity of the research process.

#### 4.1 Introducing the Book

*Like the Ocean We Rise* (Edwards & Wilkins, 2021) is a picturebook that explores how human actions affect the Earth and provides suggestions on how all humans can contribute to a positive change. It draws on examples from around the world and shows both how climate change has affected different areas and how humans together can make a movement to save our planet. This picturebook provides knowledge about climate change and encourages the reader to act. When it comes to the genre of this picturebook, it can be difficult to distinguish between fiction and factual text. I would argue that this picturebook is a fictional text based on true events as it provides examples based on real places and people in addition to being written in a way that encourages the reader to act as the reader can learn from the theme. The thematic aspect of this picturebook is climate and the importance of standing together to make a difference. The

picturebook communicates directly to the reader by using the plural personal pronoun *we*, "We know that real change starts with you and with me..." is a sentence early in the picturebook, which highlights the joint responsibility for our Earth. Throughout the picturebook, the reader will read about different climate challenges and the examples can encourage the reader to act and be a part of the collective *we*. *Like the Ocean We Rise* provides multiple learning opportunities and can be adapted to different age levels as it is multiple ways of working with this picturebook in the classroom. In the following, I will briefly describe the iconotext and highlight potential elements that can be effectively integrated into a classroom setting.

As mentioned in my theory chapter, a picturebook has one or more pictures on each double spread, where they collectively form an aesthetic whole (Birkeland, et al., 2018, pp. 98-99). Both the written text and the pictures communicate with the reader. In this picturebook, the overall approach of the iconotext is symmetrical as both signs narrate the same story (Heggernes, 2020, p. 114), but I would say that some of the iconotext can be described as expanding as the pictures provide additional details to the written text and can offer other perspectives on the story (Heggernes, 2020, p. 114). As mentioned, this picturebook draws on examples from around the world, where the pictures tell the same story that is read through the written words. However, by looking at the pictures, the readers can discuss what is happening. One example where the pictures expand the written text is the double spread where one girl in Sweden said enough and started a ripple. The pictures are of polluted factories and airplanes on one side, and a drawing portraying Greta Thunberg on the other side. The written text is mostly connected to the portrait of the girl, but the factories and airplanes are connected to the text as something needs to be done. An example where the text and pictures portray the same message is when the written text is "In Tokyo we fill our rooftops with hives, we do it to make sure the honeybee thrives. Let's change things together, we all have the power to grow bees the gift of a single bright flower!" and where the pictures illustrate rooftops, honeybees and a girl growing one single flower. The pictures in this book are illustrated in a way that tells the same story as the written text, yet if the reader examines them, there are many things to be discussed and aesthetically appreciated.

The pictures are made in bright colours that catch the reader's eye. The use of bright colours can be interpreted as a symbol of hope as they are used to expand the text's message about unity and the call to take action to help our planet. By looking at the pictures, the reader can see that the authors have used cold and grey colours when describing climate challenges, which change

into bright colours when describing actions that can be done. The front cover of the picturebook reveals a visual narrative, where the transition from a negative side toward a more positive side and a brighter future is represented. On the left side of the front cover, a polluted environment is visually presented with factories, airplanes, and polluted air illustrated with cold colours. There is a movement of people walking towards a brighter future to the right side of the front cover with clean air, flowers, and bees, all things we associate with a clean world. These elements are illustrated with bright colours which can provide the reader with hope.

Like the Ocean We Rise thematises that we must act to protect our world, and the way the author and illustrator have chosen to display the issue of the melting glaciers in the Artic, coral bleaching in Queensland, drought in Uganda, and the deforestation of the rainforest are some aspects of the picturebook that can be discussed with the pupils. By examining these pages, we can see that the author and illustrator have chosen to do the opposite from the front cover, as these pages transit from a positive side to a negative side. In addition to informative pictures, these pages include sentences like "We can't carry on letting ancient ice melt.", "It's time to take charge - we can turn this around!", and "so we do what the land and the animals can't". Collectively, the text and pictures emphasised our collective responsibility in addressing environmental challenges. Another aesthetic appreciation is the use of tactile elements throughout this picturebook. In all the double-spread pages except the first and last, the authors have chosen to include tactile elements by including one or more cut-out raindrops. This is something that can be discussed in the classroom, as they are present throughout the picturebook. An interpretation of this is that they are included to highlight water as a topic. The title is Like the Ocean We Rise, and the topic of ocean and water is present throughout the picturebook. This element combines the whole picturebook and is an important part of the narrative. Another interpretation can be that these raindrops represent the collective "we" as they are important throughout the whole reading experience, and they get bigger as more people join the movement towards a better future for our Earth.

The lyrical language in this picturebook makes it a good book to read aloud as the rhythm and rhyme contribute to a flow in the narrative. In addition, an engaging aspect of this picturebook that can play a part when reading aloud is the use of different font sizes. This could also serve as a topic for discussion with the pupils. An interpretation is that the author emphasises certain words by making them larger, signalling the words' significance, and encouraging readers to take note of them. An example of this is the term "waited" on the page discussing drought in

Uganda which increases in size with each repetition, potentially indicating an escalating sense of urgency for rainfall with each occurrence of the word. Both the visual and the written text reflect the same message and the picturebook highlights that everyone can contribute to making a difference in the world. As mentioned, there are multiple ways of using this picturebook as both text and pictures are engaging. In the following, I will explain lesson study as a method and how we used this picturebook in a reading-aloud session in the current lesson study project.

#### 4.2 Lesson Study

Lesson study as a method is a collaborative research process used in education to improve teacher practice and pupils' learning. This method originated in Japan and directly translates the Japanese term jugyokenkyu, where the word jugyo means lesson, and kenkyu means study or research (Fernandez & Yoshida, 2004, p. 6). Lesson study as a method is a research strategy tied directly to the classroom that encourages collaboration among colleagues, professional guidance, and targeted learning when there is a recognised need for competence development, and where knowledge is developed by teachers for teachers (Olsen & Wølner, 2017, pp. 14-15). Lesson study is a collaborative process where teachers work together systematically to design a lesson. There are different models for the cycle of lesson studies (e.g. Fernandez & Yoshida, 2004, pp. 6-7). However, in this thesis, I draw inspiration from the cycle described by Knut-Rune Olsen and Tor Arne Wølner in their book about lesson study and teacher learning. They describe the cycle of lesson study through four steps, where the first step is where the group of teachers decides on the didactic focus, links it to the national curriculum, and identifies the level of the pupils. The second step is where the teachers plan the lesson. The third step is when the teachers implement and observe the lesson, this is where they gather data which will be used in the fourth step when the teachers come together to reflect on and evaluate the lesson (Olsen & Wølner, 2017, pp. 16-20).

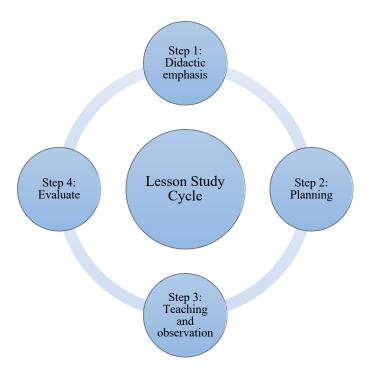


Figure 1: Lesson Study Cycle (inspired by Olsen & Wølner)

#### 4.3 The Current Lesson Study

As previously noted, I have been collaborating with another master's student. Although we are working on separate master's theses with distinct focuses, perspectives, and research questions, we collaborated in the lesson study process and the collection of data. Together with a primary school teacher, we have designed two lessons that revolve around the subject of sustainability using the picturebook *Like the Ocean We Rise*. Each lesson was designed for a lesson with a duration of 60 minutes and was tested out in two teaching cycles with two different groups of pupils. This thesis will address one of the two lessons we designed together, where I focus on the pupils' environmental awareness, multimodal literacy, and critical literacy when reading and discussing the picturebook. The second lesson, which is described in my co-students' thesis focuses on extracts from the picturebook and what the pupils learned from it and the literary discussion, revealed through pupils' texts (Karhu, 2024)

As part of the lesson study and to answer my research questions, I observed the lessons, conducted group interviews with pupils, and had open interviews about the lessons with the teacher before and after class. To enhance clarity and visual comprehension, I have created a timeline that mirrors these steps, offering a visual representation of this lesson study. In the following, I will outline our approach to this lesson study which closely aligns with the four-step framework within two teaching cycles.

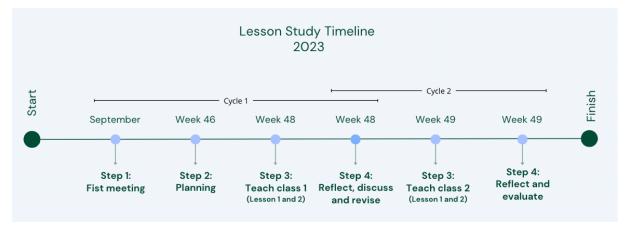


Figure 2: Lesson Study Timeline

#### 4.3.1 Learning Cycle One

The first cycle extended from the first meeting in Step 1 to the evaluation and revision of the first lesson in Step 4. In the following, I will describe what we did in the first cycle of this lesson study.

#### **Step 1: First Meeting**

According to Olsen and Wølner, the first step in a lesson study project is where the group of teachers decide on the didactic focus, link it to the national curriculum, and identify the level of the pupils. This is also the step where the teachers establish overarching goals for the lesson and identify the current situation in the classroom which will be the basis when planning the lesson (Olsen & Wølner, 2017, pp. 17-18). To be able to investigate and answer the research questions for my master thesis, I needed to decide on the didactic focus. This was discussed in the first meeting with the English teacher in September where the primary objective was to outline our goals for the upcoming lesson study. We, the master students, presented our respective master theses objectives and outlined the research questions to be explored within the context of this study. Further, in collaboration with the teacher, we determined the didactic emphasis, the overarching objective for the lesson study, and deliberated on the chosen topic and the specific focus that the lesson should encompass. Additionally, it was in this meeting we developed a project plan where we decided on when and how we were going to carry out this lesson study. The group decided that my co-student and I were going to draft a lesson plan constructed around the learning objectives and key considerations necessary for planning the lesson, which was informed by insights from the teacher. When planning the lesson study, it was important to define the scope of the observations and decide whether to comprehensively

record all aspects of the lesson or to concentrate on specific areas (Olsen & Wølner, 2017, p. 34). The goal of the observations was to be able to evaluate and revise the lessons. In addition to being able to revise the lessons, the scope of our observations was decided based on the goal of our different master theses. In my thesis, I decided I wanted to focus on the dialogue in the classroom, and how the teacher and pupils used their multimodal and critical literacy skills when interacting with the picturebook. By carefully selecting a didactic focus and defining the scope of our observations, we were able to begin constructing a lesson that aligned with the intended objectives.

#### **Step 2: Planning**

Step two consisted of planning the lessons. This step involved defining the specific activities to be integrated into the lesson and detailing the specific elements we as observers should focus on. Additionally, we established the desired learning outcomes for the pupils and formulated effective strategies to attain these objectives throughout the lesson. This step needed to be done thoroughly to make it possible to describe, analyse, and conclude when evaluating the lesson (Olsen & Wølner, 2017, p. 39). Based on the teachers' wishes, we drafted two 60-minute lesson plans, where the first lesson (henceforth referred to as "Lesson One") is connected to this thesis, and the second lesson (henceforth referred to as "Lesson Two") is connected to my co-student's thesis. These drafted lesson plans were discussed with the teacher in our meeting in week 46 where we collectively discussed and finalised the lesson plans for the first learning cycle. In addition to making a draft of the lessons, we prepared observation forms with a specific point of focus for the classroom observation. The meeting with the teacher in week 46 was recorded to be able to code and analyse the data. The teacher got information about this before the meeting and signed a consent form where the researchers described the purpose of the recording. Before the meeting, the teacher received the drafted lesson plans, writing tasks (described in my co-student master's thesis), and observation forms, which we reviewed together when we met.

The lessons were thoughtfully designed based on the information provided by the teacher, featuring well-defined learning objectives that were aligned with competence aims in the English subject. The competence aims chosen for this lesson study are "read and talk about the content of various types of texts, including picture books" and "use simple strategies for language learning, text creation and communication" (Norwegian Directorate for Education and

Training, 2019). These competence aims and the interdisciplinary topic of sustainable development were used to make the learning objectives for both lessons:

- 1. I know what climate change is.
- 2. I know a few things I can do to help the planet.
- 3. I can read/listen to an English-language picturebook.
- 4. I can discuss what this book is about by looking at written text and pictures.
- 5. I can write a few things I can do for the planet.

The first draft of Lesson One (see Appendix 1) focused on reading the whole picturebook and then having a book talk with the class with a focus on learning objective 1, 3 and 4. The lessons consisted of starting up and pre-reading activities before the teacher read the picturebook while the pupils listened and looked carefully at the pictures. After reading, the pupils were going to discuss the picturebook through the approach called Critical Thinking and Book Talk (CT&BT). In our planning meeting, we made a few changes adapted to the pupils, the teaching situation, and the teachers' thoughts about the time perspective (see Appendix 2). We discussed how the teacher could read the picturebook aloud and topics for discussions I wanted the teacher to include in her teaching to foster the pupils' critical literacy. To vary the lesson, we decided to include an active task called "Walk and Talk" where the pupils would ask questions to each other after the class had finished the picturebook. Lastly, we discussed how to organise CT&BT with the pupils. After making some small changes adapted to the teacher and the pupils, we were optimistic that this was a lesson that could be tested out with the pupils. Throughout our conversation, we decided that the teacher should follow the plan as closely as possible. However, some changes could be made to adapt it to the class.

#### Step 3: Teach Class 1

The third step in this lesson study was when the teachers taught the lesson to the pupils, while we assumed the role of observers. The observation form for Lesson One focused on how the teacher followed the intended plan, used the picturebook based on both text and pictures and the discussions between the teacher and the pupils when discussing the picturebook and topic (see Appendix 4). It was crucial to establish and determine specific roles within the classroom before the teaching session commenced (see section 4.3.3) and the pupils were informed about why the observers were in the classroom. To participate in this lesson, the pupils needed to hand in a consent form signed by themselves and their parents or guardians (Appendices 8 and 9). There were 14 of 22 pupils participating, the remaining pupils had an alternative lesson with

another teacher. The lesson plan was a product of collective planning, and it was essential for the instructing teacher to follow the plan as closely as possible to ensure that we as observers could effectively follow our intended focus of observation, as this would enable the team to assess the lesson more effectively. We took field notes during the lesson, which were used when evaluating the lesson in step 4 and when analysing the data. Immediately after class, I conducted a semi-structured focus group interview with five pupils to get an insight into their thoughts about the picturebook and lesson. Important factors when interviewing children and reflections about the interview will be described in section 4.3.4.

#### Step 4: Reflect, Discuss, and Revise

Olsen and Wølner state that the immediate impressions and reflections from the observation fade relatively quickly, and it is therefore important that the group gather for a debriefing immediately after the teacher has ended (2017, p. 43). Step 4 was done a few hours after Lesson Two in Learning Cycle One was finished. The researchers got some time to reflect on their own while the teacher finished her teaching for the day. When the teacher was finished, we gathered for reflection and revision. This meeting was also recorded to be used in the analysis. We shared our observations, and together as a group with the teacher, we discussed and analysed what went well and what could have been better. In addition, I shared some of the pupils' responses from the focus group interview. The overall impression of Lesson One was that it worked well, and the pupils were engaged in the topic and storytelling. Using data from our experience, observation, and interview, we revised the lesson. Some changes from the intended plan were made as the teacher adapted the lesson to her pupils and time (see Appendix 3). In our revision, we discussed that the upcoming lesson should include more information about multimodality before reading the picturebook to get the pupils to look at and analyse the illustrations regardless of whether the teacher stops to talk about them or not. In Learning Cycle Two, we wanted a bigger focus on the book talk and critical literacy. Between the first lesson and our revision, I made a short document explaining the approach of CT&BT which I sent to the teacher by email (Appendix 11). My reflections after the first learning cycle were that I might not have been clear enough about what I wanted to investigate with this research. Sending the teacher a short document before the meeting, made it easier to revise the lesson based on the intended goal of my thesis. The improved lesson was tested out in Learning Cycle Two.

#### 4.3.2 Learning Cycle Two

Learning Cycle Two was conducted in the following week where the team used the revised lesson and implemented it in the classroom. In Learning Cycle Two, there was an increased emphasis on critical literacy and making the pupils share their thoughts with the whole class.

### Step 3: Teach Class Two

Step three in Learning Cycle Two was when the revised lesson plan was tested out with another class. According to Fernandez and Yoshida, it is rare to see the same teacher teach the lesson twice as varying the teacher would provide the research group with a broader base of experience (2004, p. 7). However, in this lesson study, the same teacher taught both lessons to two different groups of pupils while we observed the lesson. There were 13 of 24 pupils participating in this group. The changes made in step 4 resulted in a lesson having a greater emphasis on multimodality and critical literacy. Before reading the picturebook, the class discussed how both pictures and written text will affect the meaning, why critical thinking is important, and how our thoughts might change after listening to peers. The teacher used her pedagogical judgment and chose to stop during the reading session to discuss some of the pages. By including open-ended questions such as "What do you think", the teacher activated the pupils' critical thinking by allowing them to think, reflect, and answer. In this lesson, the pupils got more time when discussing the picturebook with the whole class, yet ideally, it should have been even more time. The teacher asked several pupils questions, but not all the pupils got to answer all the questions. After class and recess, I conducted a semi-structured focus group interview with five pupils to get an insight into their thoughts about the picturebook and lesson.

#### **Step 4: Reflect and Evaluate**

The fourth and last step of this lesson study was when the research group gathered to reflect on and evaluate Learning Cycle Two and the lesson study as a whole. Similarly, as in Learning Cycle One, the fourth step was done a few hours after Lesson Two. The teacher finished her teaching for the day while we got time to reflect, and then the group gathered in a room with no interruptions to be able to have our last meeting with recording.

At the beginning of the conversation, the teacher expressed that we revised the lessons for the better. She thought the time was a bit short and it would have been better to have more lessons, yet it was possible to "be in the moment" and the outcome of the lessons was good. The teacher asked the pupils open-ended questions while reading the picturebook to make them think about

and discuss the picturebook and topic. The team discussed the scope of the lesson and that the time was too short for these activities. The English lesson was originally 60 minutes. However, due to different factors, the teaching was no more than 45 minutes. Both the "Walk and Talk" activity and the book talk could have been done more thoroughly if we had more time. Despite the limited time available, the lessons were successful as the pupils actively engaged with the picturebook and demonstrated their environmental awareness and critical literacy using their multimodal literacy.

#### 4.3.3 Classroom Observation

In qualitative research, observation occurs within authentic contexts (Postholm & Jacobsen, 2018, p. 113) and involves systematically watching and recording events. By including classroom observations in my research, I was able to gather data from naturally occurring social situations and look directly at what was taking place in the classroom, rather than relying on second-hand accounts (Cohen, et al., 2011, p. 456). Before going into the classroom, we had to decide the roles in the observations. In this lesson study, we decided that the researcher was going to be *observers-as-participants*. According to Postholm and Jacobsen, this role involves researchers making their presence known to the pupils, observing the classroom activities without direct participation, and referring the pupils to the teacher if there are questions related to the teaching (2018, p. 115).

The focus of the observation was written on an observation form, which we brought into the classroom to write down field notes. During the period of this lesson study, we made two different observation forms (see Appendices 4 and 5). The first observation form was made as a table where the focus of observation was written in one column, and the remaining two columns were empty for field notes and reflections after the lesson. This observation form was written based on the lesson plan, but it did not include the different activities of the lesson. Therefore, in addition to bringing the observation form into the classroom, I brought the lesson plan and used both documents when observing to follow the intended plan. As a result of the experience of the first observation form included the procedures of the lesson plan with keywords/sentences of the focus of the observation where I wrote field notes and reflections. This made it easier for me as a researcher to have a greater emphasis on what worked well and what could have been improved in the lesson plan.

#### 4.3.4 Qualitative Interviews

Interview as a qualitative research method aims to understand themes of the lived world from the perspective of the subject (Brinkmann & Kvale, 2015, p. 25). In this research, I chose to conduct open interviews with the teacher, and semi-structured interviews with the pupils as flexibility is a key requirement of qualitative interviewing (Brinkmann & Kvale, 2015, p. 63). My co-student and I conducted three open interviews with the teacher in this research. The first interview was when we planned the first learning cycle of this lesson study. This was a conversation where we discussed what we should include in the lesson and how to implement it. The second interview was based on the first teaching session where we discussed what worked well and what needed to be improved, and in the third interview we evaluated the whole lesson study. We wanted the interviews to be an open conversation where everyone could share their reflections and thoughts. The interview guide for the interviews with the teacher was not a written document with questions, but rather the drafted lesson plans and their implementation. As researchers, we wanted to investigate the teachers' pedagogical practice, perspectives, and thoughts about the lessons and the chosen picturebook.

Moreover, as a part of the evaluation of the lesson and as additional information to answer my research questions, I conducted two focus group interviews with 5 pupils in each group immediately after class. This was done to get insight into the pupils' thoughts and experiences about the lesson, the picturebook and the topic of sustainable development. Conducting focus group interviews with children can be a valuable and insightful method for collecting data and gaining insight into their viewpoints. As Cohen, Manion, and Morrison write in their book about research methods in education "[g]roup interviewing can be useful with children, as it encourages interaction between the group rather than simply a response to an adult's question" (2011, p. 433). Conducting group interviews with children not only allows them to collectively inspire and elaborate on their ideas and thoughts during the discussion but also tends to create a less intimidating environment, making the experience more comfortable for the children. However, there were some important considerations when including children in a focus group interview. Cohen, Manion, and Morrison (2011, pp. 432-435) mention multiple factors that I as the researcher had to consider. It was important to establish trust with the children and make the interview setting non-threatening and as informal as possible. When asking children questions, using straightforward language, and asking open-ended questions was necessary to avoid yes/no questions. An issue that might have occurred in an interview setting with children was that the children saw the researcher as an authority and therefore said what they thought the researcher wanted to hear. As a researcher, I had to be clear that there was no correct answer and that I wanted the pupils to reveal their experiences and thoughts. Based on children's short attention span, the gathering of information had to be done in a short period of time, and the duration of the interview should not be longer than 15 minutes (Cohen, et al., 2011, p. 435).

As previously mentioned, I conducted two group interviews and ensured that the factors mentioned were thoroughly considered when planning these interviews. The interviewees were selected in collaboration with the teacher. The chosen interviewees were both girls and boys with diverse interests at different levels in their language proficiency. The teacher used professional judgment and put together two groups of pupils who could stay focused and handle an interview situation. Both the pupils and their parents or guardians had given consent to participate in a group interview. For these group interviews, an interview guide was developed (See Appendix 6). The interview guide was developed with questions I wanted to discuss. However, by having a semi-structured interview, the order and the phrasing of the questions were flexible. A semi-structured interview allows the participant to lead the interaction (King, et al., 2019, p. 63), as the interviewees can bring up new topics or insights and ask questions.

This was my first experience interviewing pupils, and after the first group interview, I had some reflections that improved the second interview. The first interview occurred in the classroom while the other pupils went out for recess. Consequently, I noticed that the pupils' lack of concentration and willingness to participate was limited. Many of the answers were short and I felt their need to finish the interview as they wanted to go out to recess. This resulted in a short interview lasting for 6 minutes and 18 seconds. In addition to lack of motivation, there were some distractions as we sat in the classroom. During the interview, a group of pupils came in, and I had to ask them nicely to leave as we were in the middle of an interview. This distraction threw me off, and it impacted the quality of the interview as this affected the attention and concentration of my interviewes. For the second interview, this was taken into consideration for improvement, and I was assigned a group room, and the pupils were allowed a break before they were brought in for the interview. This resulted in an interview lasting for 18 minutes and 20 seconds, without many distractions and with motivated and engaged pupils.

Both the interviews with the pupils and the teacher were recorded and automatically transcribed when the audio recordings were delivered to Nettskjema. I downloaded the transcriptions and

listened to the recording to correct errors in the automatic transcription. In addition to correcting mistakes, I noted the individuals talking. By carefully listening, I was able to recognise the voices and name them. To maintain the teacher and pupils' confidentiality, I used aliases in the transcription.

### 4.4 Thematic Analysis

When analysing the data for this research, I chose to have a flexible deductive approach grounded in thematic analysis. This entails developing codes based on my research questions before conducting the data analysis. Subsequently, I conducted a thorough examination of the data employing thematic analysis techniques. Throughout this process, I remained open to refining the codes as I delved deeper into the data. Braun and Clarke describe thematic analysis as "a method for identifying, analysing and reporting patterns (themes) within data" (2006, p. 79), and it is seen as an accessible and theoretically flexible approach to analysing qualitative data (2006, p. 77). At the end of this lesson study project, I obtained a large dataset, and this analysis method provided me with a good overview of the data. In the following, I will describe the coding process.

Deductive coding is when the researcher starts with the codes and then looks through the data materials and finds excerpts that fit the codes. The initial codes for this research project were "Environmental Awareness", "Critical Thinking" and "Multimodal Literacy". These codes were used in a search for data when reading through the data material. Everything related to the codes was colour-labelled and written into one document for further analysis. Figure 3 in this section provides a simplified representation of the document. It illustrates the extent to which data related to specific codes was found within different datasets, using a scale ranging from 1 to 3. This scale indicates the frequency of data relevant to each code within the various datasets analysed. For instance, a higher score on the scale suggests a greater prevalence of data related to a particular code within a dataset, while a lower score indicates less relevance or occurrence of data associated with that code.

The data material for this study consisted of observation notes, transcribed interviews with the teacher, and transcribed interviews with the pupils. The observation form was mainly made to be able to improve the lesson plan. However, I found relevant data for how the pupils engaged with the picturebook and topic. When examining the transcription of the interviews with the teacher about planning, revising, and evaluation the main focus was on how critical literacy was

included and how the teacher made the pupils use their multimodal literacy. The semi-structured group interviews with the pupils included data relevant to all the themes. When conducting group interviews, it was important to focus on understanding the view of the entire group and to gather a collective response from the group (Cohen, et. al., 2011, p. 433). As mentioned, the interviews were automatically transcribed in Nettskjema, but it was important for me to check the transcription back against the original recordings and correct errors. By both listening to the audio records and reading the transcriptions, I searched for data. When going through the transcription I included some quotations and keywords into the box of coding.

As mentioned earlier, I remained open to revising the codes during the process. After looking through and analysing my data, I chose to change two of the initial codes in order to analyse it in a broader sense. "Multimodal Literacy" was changed into "Picturebook" as this change made it possible for me to further investigate and discuss how picturebooks can be used in the classroom. "Critical Thinking" was changed into "Critical Literacy" as this code includes both the concept of critical literacy and critical thinking skills. The results needed to provide sufficient evidence of the themes within the data through a concise and coherent presentation of the data and arguments related to my research questions (Braun & Clarke, 2006, p. 93). The results will be elaborated in chapter 5 where data related to environmental awareness is discussed in one section, and data related to picturebooks and critical literacy are discussed together.

Data	<b>Environmental Awareness</b>	Picturebook	Critical Literacy
		(including multimodal literacy)	
Planning (interview)	1	1	2
Observation 1	3	2	2
Group interview 1	2	2	2
Revising (interview)	2	1	3
Observation 2	3	2	2
Group interview 2	3	3	3
Evaluation (interview)	1	2	3

Figure 3: Revised codes

## 4.5 Quality Criteria

In qualitative research, it is important to consider the three quality criteria of *validity*, *reliability*, and *generalisability* which sometimes are described with terms such as *credibility*, *verifiability*, and *transferability* (Tjora, 2019, p. 143). Qualitative and quantitative research treat these

concepts differently. In qualitative research, researchers must transparently detail the methods and steps undertaken in the study to check for the accuracy and credibility of the findings (Creswell & Creswell, 2018, p. 199). In the following, I will describe and discuss the quality criteria for this project.

### 4.5.1 Validity

When conducting a qualitative research project validity is seen as an important key to effective research as validity is used to describe whether the research project can be considered valid or not (Cohen, et al., 2011, p. 179). In social sciences, such as qualitative research, validity revolves around the question of whether a given method investigates what it claims to investigate (Brinkmann & Kvale, 2015, p. 282) as it involves a logical consistency between the design of the project and its findings and if the answers in the research are actual answers to the questions asked (Tjora, 2019, p. 144).

This research consists of a lesson study including observations and interviews as methods, and it is necessary to consider the extent to which these methods measure what I intend to measure based on my research questions. The rich description of the study and its findings may transport the reader to the setting which makes the result become more realistic and richer (Creswell & Creswell, 2018, p. 200). The lesson study is thoroughly described and directly linked to my research questions to examine how Like the Ocean We Rise can be used in a classroom situation. Research is traditionally seen as a "democratic emancipation and reflexive work for social change, in which participants are more actively involved in research and change" (Tjora, 2019, p. 144) and the question of whether the research has led to improvement is highly valid in this research as the lesson study has resulted in an improved lesson within the framework of this study. Validity when it comes to the scope of the observation revolves around only observing the intended observation focus. In a classroom setting, there can be many distractions. Nevertheless, following an observation form enabled me to concentrate on the intended investigation. Validity in the interview situation refers to "the trustworthiness of the subject's report and the quality of the interviewing" (Brinkmann & Kvale, 2015, p. 284). The open interviews with the teachers were a professional discussion where we collectively planned, revised, and evaluated the lesson study and it was an equal collaboration. In these interviews, we discussed our subjective observations. By including different sources of data and discussing the observation with our team, I was able to verify the impression and observation which can add validity to the findings. When it comes to conducting the group interviews with the pupils, the question of validity is crucial. In an interview situation with children, there is a power relation and there is no certainty if the pupils tell their truth because they might say what they think the researchers want to hear. The pupils were also interviewed in groups, which could make them agree with each other instead of telling their truth. However, ensuring that the questions are open-ended, clear, and relevant can help promote authentic responses from the interviewees which can strengthen the validity.

### 4.5.2 Reliability

Reliability in research refers to the consistency and trustworthiness of the research findings, often linked to whether a finding will be reproduced under different circumstances and by other researchers (Brinkmann & Kvale, 2015, p. 281). However, within qualitative research, the replication of conditions will never be the same, and the reproduction will not result in the same findings as the research is context dependent. Tjora explains that "[r]eliability is concerned with internal logic throughout a research project, and is strengthened by demonstrating how various decisions in a study are made in accordance with sound academic principles" (2019, p. 146), and to strengthen reliability the link between the analysis, empirical data, and theory needs to be explained (Tjora, 2019, p. 146).

In this research project, the findings are connected to the particular lesson study. The lesson plan is collectively planned in a team consisting of two master students and one English teacher, and the final product would have resulted in another lesson plan if another team were to plan a lesson based on *Like the Ocean We Rise*. Even if the lesson plan could have turned out differently with another group, I would argue that this study demonstrates reliability due to the process of designing the lesson plan. The process of planning involves collaboration between educators and is systematically made and revised based on the current context. This process is documented by a description in my method chapter and in appendices (see appendix 1, 2, and 3). By having a lesson study, the reliability is supported by the interactive cycles of planning, implementing, observation, reflecting, and revising.

Observation was an implemented part and crucial for the revising of this lesson study. When observing the lessons, I used my observation form. To keep a high degree of reliability, it was important to follow the intended focus of observation. Nevertheless, when observing, I wrote down my subjective field notes, which could have been different if someone else had been observing. In this case, there was another observer (my co-student), and after the lessons, we

sat down and collectively shared our observations before reflecting and revising with the teacher. By sharing reflections and observations with my co-student and the teacher, we were able to verify our observation notes. When it comes to the group interview with the pupils, it is important to note how my involvement could influence the research. However, clarifying my role and using a semi-structured interview guide made it possible to change the structure of the interview and the content based on how the pupils interacted with the questions. Another consideration was the composition of the pupils in the group interview and how the contextual factors might influence the interview. By acknowledging this influence, the study maintains transparency and allows readers to interpret the findings within the context.

Concerning the analysis of the data, this study exhibits reliability despite potential subjectivity in data analysis for several reasons. It is important to acknowledge that the codes were developed based on my subjective view of what I believe was the most relevant for this thesis and to recognise that other researchers might have coded the data differently. However, by including quotations from the interviews and examples from my observation and interviews in the analysis I was able to illustrate the diversity of the data where I demonstrate transparency contributing to the reliability and credibility of the outcome of my analysis.

#### 4.5.3 Generalisation

Generalisation is a goal within most social research (Tjora, 2019, p. 147), and means to what extent the findings of the research can be considered applicable to other contexts. Qualitative studies emphasise describing the context and are often characterised as being detailed. A detailed and transparent description of how the study was conducted and the validity of the findings and conclusions can invite the reader into the research process which promotes the generalisability of the study (Postholm & Jacobsen, 2018, p. 238). The purpose of this research was to investigate how one picturebook could be used in a lesson study project to promote environmental awareness and critical literacy. The findings were context dependent as they were found in this particular lesson study including observation and interviews. The descriptions of how this lesson study was conducted provide transparency and can contribute to transferring knowledge regarding lesson study as a method and the topic of environmental awareness, multimodal literacy, and critical literacy. Moreover, the final product of this lesson study can serve as a template for further lessons teachers can use and adapt to their class and context.

### 4.6 Ethical Considerations

Conducting qualitative research entails careful attention to ethical considerations. In the context of this lesson study, which involves direct contact with the participants, it was crucial to provide them with comprehensive information regarding the study and how it would affect them as participants. Before commencing this study, an application to the Norwegian Agency for Shared Services in Education and Research (Sikt) needed to be submitted. The application was approved in September 2023, and they reassured that this research is ethical and considers privacy for those who are participating (Appendix 10).

An important step when conducting qualitative research is to inform the participants about the research. This must be done through informed consent containing information about the overall purposes of the research, the main features of the design, as well as any possible risks and benefits of participating (Brinkmann & Kvale, 2015, p. 93). The informed consent for this research was written together with my co-student, as our research included the same teacher and pupils. We wrote one informed consent form designed for the teacher (Appendix 7), another intended for parents (Appendix 8), and a simplified version specifically crafted for pupils (Appendix 9). We used the template provided by Sikt when writing the informed consents to the grown-ups, and to make the pupils understand what they could participate in we made one easier explained. However, all these explained the purpose and the aim of our different research. It also explained why they were asked to participate, what it included, and that participation was voluntary. Each consent form consisted of a selection of options for the participants, allowing them to indicate their willingness to participate or not. The consent form made for the teacher had three distinct choices; participate in professional conversation, be observed, and participate in an interview. Likewise, the consent form made for the pupils featured three choices: observation, collection of pupil text, and participation in focus group interviews. This study included children, and as they are under 18 years old, their parents or guardians needed to consent to the children's participation in this research, and they could choose what they wanted to participate in.

It was also important to inform the participants about confidentiality. The participants have a right to privacy and data identifying the participants must not be disclosed (Brinkmann & Kvale, 2015, p. 94). The informed consent included information about what we would do with the data and how it would be stored with complete anonymity. The participants were informed about who would have access to the data and that the data would be treated confidentially and

in accordance with privacy regulations. No names were written down, however, the participants' voice in the recording is regarded as personal information. As the researcher, I was the only one who could access the data through my personal login, and the transcriptions were anonymised before they could be discussed with my supervisor. The interviewees' participation remained anonymous as no names were used in the observation, and aliases were made instead of using their real names in the transcription. Furthermore, if some of the interviewees said something that could identify them in the interview, this was excluded from the transcription to ensure that their identity would not be revealed. The participants were also informed that they could withdraw their consent at any time and that all personal data such as consent forms and recordings would be shredded and deleted at the end of the project in July 2024.

Another important ethical consideration is the asymmetry of power relations in research interviews. Brinkmann and Kvale state that research interviews are "a specific professional conversation, which typically involves a clear power asymmetry between the researcher and the subject" (2015, p. 37). Moreover, they argue that the interview is under the control of the researcher as it is an instrumental conversation as it is not an open conversation between equal partners (Brinkmann & Kvale, 2015, pp. 37-38). In an interview situation is it necessary to reflect on the power relation and ensure that it is not a manipulative dialogue. In this research, I chose to conduct the interviews using a semi-structured interview guide, which allowed the interviewees to lead the interaction (King, et al., 2019, p. 63). For the interviews with the teacher, we had an open reflection about the lesson plans and the teacher influenced the interview strongly. However, when conducting the group interviews with the pupils, I needed to increasingly reflect on the asymmetrical relation between me as an adult and they as children. Establishing trust and making the pupils feel that they could express their own opinions was important. In the following chapter, I will present the results obtained from the interviews with the teacher, classroom observations, and group interviews with pupils.

# 5 Results

In this chapter, I will present the qualitative data and results obtained from the planning, implementation, revision, and evaluation of the lesson study, in addition to the information provided by the informants. The quotations included in this section are directly translated from Norwegian to English by me. The data will be presented under the headlines: *Environmental Awareness*, and *Multimodal and Critical Literacy*. Within these sections, the data collected from the observation and the teacher interviews will be presented together, whereas the data from the group interviews with the pupils will be presented in a separate section at the end of each headline to maintain the distinction between pupils' statements in the classroom and those of the participating interviewees. The findings of this study provide valuable insight that has helped me answer my research questions and contributed to understanding how this picturebook can foster environmental awareness and multimodal and critical literacy in a classroom context.

### 5.1 Environmental Awareness

Environmental awareness is, as mentioned in my theory chapter, about being aware of the environment and how human action can impact the Earth. The picturebook for this study was chosen because of its representation of the environment and how humans can contribute to making a difference that benefits the environment and our Earth. Some of the findings from conducting this lesson study were evidence of the pupil's environmental awareness which will be presented in this sub-chapter.

### 5.1.1 Teaching Intervention

When planning for this lesson study, the team discussed didactic methods for including this picturebook in the classroom and how to promote environmental awareness. Through our planning, we discussed the importance of activating the pupils' prior knowledge before reading the picturebook and discussing environmental issues. In class, the teacher activated the pupils' knowledge by making them discuss four pictures about the increasing temperature on the planet and how it affects the environment. Both in Learning Cycle One and Learning Cycle Two, these pictures made the pupils connect what they already knew with new information provided by their peers and the teacher to enhance comprehension. Additionally, some of the themes of these pictures were further discussed when the teacher read the picturebook aloud. As a result of activating pupils' prior knowledge, the teacher created engagement with the topic as the pupils became aware of what they already knew or had experienced. This was a strategic way of capturing the pupils' interest and motivating them to learn more. Activating prior knowledge

when working with picturebooks aligns with the principles of ecopedagogy as it promotes interconnections between individuals and the environment. In addition, it can make the pupils reflect on their prior knowledge and how it is connected to new information and knowledge.

When working with literature-based ecopedagogy in English language teaching, it is important to consider how the teacher can make the content understandable to the pupils. The chosen picturebook contained several challenging words that might have been unfamiliar to the pupils and required additional explanation. In the planning stage, the teacher expressed that she thought the best way to explain difficult words was to stop during the reading process and see if the pupils understood the words based on the context by saying "I think it is better [to stop during the reading process] than if I go through the words [before reading], it can become a bit out of context for them if I talk about the words before they see the text". This resulted in lessons where the pupils could both rely on the pictures in the book and the teachers' explanation of words and content. During the reading-aloud session in Learning Cycle One and Two, the teacher stopped at different pages and discussed both pictures and vocabulary. The teacher implemented the literary text in a way that made the pupils examine and engage critically with the content and meaning to understand the connections between society and the environment.

Both in Learning Cycle One and Two, the pupils were engaged with the topic and interacted with the picturebook. During both lessons, there was a high level of environmental awareness in the classrooms. The first activity involving the picturebook was the discussion of the pupils' thoughts about the content based on the front cover where they discussed many aspects related to the topic of sustainable development. The pupils mentioned polluted air due to factories and airplanes and discussed the need for clean air on our Earth and that the people on the front cover were protesting towards a clean future. When the teacher asked the pupils why they think it is important to learn about climate issues, the pupils in Learning Cycle One were eager to discuss. One of the pupils stated that "The more we know, the more we can do" which highlights the importance of including ecopedagogy to develop awareness and knowledge about the environment in the classroom. Another pupil expressed "The Earth is broken" when answering the teachers' question and another said, "It is everyone's responsibility". Their statements demonstrate that the pupils had information and felt a responsibility to make proactive choices benefiting the environment. The pupils in Learning Cycle Two were a bit more reserved. According to the teacher, the second group of pupils are academically strong, but not as eager to share what they know as the group in Learning Cycle One. Consequently, the teacher needed to ask the pupils to elaborate on their answers, and when they did, they had good reflections about what they saw and their prior knowledge. One statement noted in my field note was one pupil saying, "We are on the same team", which demonstrates the pupil's understanding of the collective responsibility of our world.

After discussing the front cover, the teacher started reading the picturebook aloud and stopped to discuss vocabulary and pictures on some of the pages. A page the teacher found particularly interesting and where the pupils in both cycles actively joined the discussion was the page thematising coral bleaching. In the revision of the lesson study after Learning Cycle One, the teacher expressed that several of the pupils would find that page quite interesting as this is something few of them knew before reading the picturebook. She expressed that she thought this was a page they could spend time discussing as "What happens in the sea [...] was quite new, or I thought it was, and it was indeed new to them", compared to the page about melting glaciers and polar bears as this is familiar to most pupils. The teacher's reflections proved correct for both cycles as both classes discussed how climate change affects life under water and the phrase "Like the ocean we rise, and we promise to fight!" (Edwards & Wilkins, 2021). Many pupils knew that the sea level is rising due to increasing temperature, but few knew the effect of the increasing temperature below the surface. Both in Learning Cycle One and Two, they discussed the bleaching of corals and the page seemed to be interesting for both classes which underscores that literature-based ecopedagogy is an effective strategy to provide the pupils with new knowledge and information as the pupils can use the content of the literature to build on existing knowledge.

After the reading session, the pupils conducted the task called "Walk and Talk" to discuss their own thoughts and opinions about the topic. The activity level was high in both cycles when the pupils asked each other questions about the topic. Based on my observation the pupils were eager to discuss with each other and some of them wanted to discuss more when the teacher stopped them and made them gather for a classroom discussion. Both in Learning Cycle One and Two the pupils expressed that they wanted to discuss more. In Learning Cycle One, a statement from one of the pupils was "But we are not finished with our discussion", and in Learning Cycle Two one said, "We need more time, we only had time to discuss one of the questions". As this was an activity where the pupils discussed with their peers, I did not write down any field notes with quotations. The plan was to have a class discussion after this activity, but due to limited time, the classroom discussion was shorter than intended and the pupils did not have time to demonstrate a lot of environmental awareness with the whole class. Consequently, most of the pupils' environmental awareness was shown in the pre-reading activities and while the teacher read the picturebook. Additionally, I was able to gain insight into some of the pupils' experiences in the group interviews.

#### 5.1.2 Semi-structured Group Interviews with Pupils

I conducted two group interviews and interviewed 10 pupils in total. In the interview after Learning Cycle One, there were three boys and two girls. They expressed that they liked the picturebook because of its topic as they found it exciting to learn more about the climate. By examining the literary work together with their peers, the pupils could see the connection between literature and the environment and understand how literature can influence and inform. They had not worked with this topic in English class before but had read other books about climate change in subjects such as Norwegian and Science. Based on what they had learned in other subjects and outside of school, the group expressed that they knew a lot of the content in the picturebook before this class, and one of the pupils said, "We just learned more about climate". However, one aspect of the picturebook that was new to some of them was coral bleaching, which aligned with the teachers' thoughts. This underscores the significance of integrating ESD and empowering the pupils with knowledge and information in order to contribute to a sustainable future. Even if the pupils expressed that they had a great deal of knowledge about environmental issues, gradually developing more knowledge can lead to a better understanding of concepts and discoveries.

The interview after Learning Cycle Two consisted of four girls and one boy. In this group, there were more divided thoughts about the topic and the picturebook. One of the girls expressed that she found the picturebook boring by saying "it is about climate, and I am not that interested in climate, but I learned a bit about climate". Another girl expressed that she found it boring because she knew everything before reading the picturebook. Yet they were eager to further discuss the picturebook and its topic. During the interview, we discussed how human behaviour impacts the environment and the pupils shared good reflections, which is the main focus of including ecopedagogy in the classroom. Two of the girls discussed pollution from cars and the importance of recycling. They discussed the importance of driving less and to "not throw plastic or anything else in nature". Further, the pupils critically engaged in the discussion and explored connections between human actions and the environment. One of the pupils expressed that she thought adults affected the environment more than children by saying "The adults are those

who drive the cars, children bicycle". Then the discussion revolved around how they got to school. Some of them were driven by their parents and some took the bus, but mostly they either walked or bicycled, which they all agreed was better for the environment. This underscores the pupils' thoughts of responsibility to make proactive and good choices for the environment.

During the interview in Learning Cycle Two, I employed examples from the picturebook to prompt the pupils to engage in discussion. When we delved into the title Like the Ocean We *Rise* the pupils reflected on the significance of water and the vital role of rain in sustaining the environment. Their thoughts about the title and the importance of water and rain made us look at the page about the drought in Uganda. They discussed that water is important for both humans and animals and one of the girls shouted "Yes, it is deadly", and my interpretation of her statement is that people and animals can die if they do not have access to water. The pupils demonstrated their understanding of the connections between society, human actions, and the environment as they discussed why water is important and how access to water varies between countries. This developed into a discussion where the pupils reflected on the varying climates across different places on the Earth. The pupils discussed that not all countries have snow at Christmas, and one of the girls said "But, for other people, they think we are lucky to have snow. They somehow feel that they are very lucky if they get snow on Christmas Eve, whereas we get snow every single Christmas Eve", and another answered, "And we do not want it". They would rather have a sunny Christmas, as they have in Australia. The discussion of how the climate is in different parts of the world indicates that the pupils have knowledge of and awareness about climate and the environment.

At the end of the interview, we discussed what they had learned after reading the picturebook. "We learned about climate change" was one statement, where they further discussed if they had learned something new. They expressed that they knew a lot but learned more about the drought and the need for water in Uganda, and they had little knowledge about the environmental changes happening below sea level. "I did not know that the corals turned white." said one girl, and another answered, "They get a bit grey if they don't get clean water". Further, they discussed how the temperature in the water also affects other animals where they used their environmental awareness and discussed:

- Pupil 1: What I think is the worst is that polar bears, they, ehh, before they could only walk across the water, as it was quite hard ice. But now we produce much more gas.
- Pupil 2: And oil.
- Pupil 1: Yes, and that is why the ice is melting, and it gets difficult for them. [...] If they walked on top of the ice, the ice could crack into sort of small lumps, and then they are trapped.
- Pupil 3: It can be that they lose their family too.

The discussion further moved on to other animals and pictures they had seen regarding this issue. Based on the interviews, I will say that the pupils possess a strong environmental awareness. They were able to point out important environmental issues brought up in the picturebook and connect them to their prior knowledge about the topic. When discussing environmental issues, they also demonstrated a lot of multimodal and critical literacy, which will be described in the following sub-chapter.

#### 5.2 Multimodal and Critical Literacy

The pupils participating in this lesson study demonstrated both multimodal and critical literacy as they worked with the picturebook. In this sub-chapter, I will present the findings related to multimodal and critical literacy. The findings from the conversations with the teacher and the observation from Learning Cycle One and Two will be presented through the sub-headings "Teacher Intervention", "Reading-aloud Sessions" and "Pupil Discussions". Lastly, I will present the findings from the group interviews with the pupils in Learning Cycle One and Two where I first will discuss the findings related to multimodal literacy, followed by those related to critical literacy.

### 5.2.1 Teaching Intervention

The teacher had prior experience in including picturebooks in her classroom. During our planning meeting, we discussed the importance of discussing why it is important to read both text and pictures with the pupils and that the pictures can help the pupils understand the complexity of environmental issues. The teacher said the pupils were used to "guided reading" where they often discuss pictures critically and how they convey meaning. Additionally, critical literacy and how to increase the pupils' ability to be critical thinkers were focal points during the planning and revision of this lesson. As described in my theory chapter, critical literacy

refers to how the reader approaches the text, and it underlines that a text is never neutral (Ives & Crandall, 2014, pp. 203-204). In the planning stage, the group discussed the didactic potentials and limitations of having the pupils listen and discuss throughout the whole lesson, and not include any writing activities as the class normally used to do in each English class. The teacher expressed that she thought it would be fine to have a lesson without writing as we included active tasks where the pupils could critically reflect, which was done by including the task called "Walk and Talk" and interactive classroom discussions. Critically discussing picturebooks can enhance the readers' ability to express their thoughts and opinions based on what they have read and seen. In order to discuss the picturebook critically, it was important to ask questions that encourage the pupils to think critically and understand that the written text and the pictures contain beliefs and a message constructed by the author and illustrator. To increase the pupils' critical literacy and critical thinking skills, we discussed the need to ask open-ended questions during the whole lesson. The teacher did a good job asking questions like "What do you think", "In what way", "Why", "Can you explain" and "What did the group talk about" in both cycles, which made the pupils think and sometimes elaborate on their answers. The open-ended questions were asked during the reading session (including thinking stops to discuss the topic and pictures), when the pupils asked each other questions, and in the classroom discussion. Based on the observation, it was clear that the teacher used the book and its pictures actively to critically discuss the content and the topic with the pupils. The teacher made the pupils aware of how pictures can convey meaning and that they often provided additional information to the written text in both cycles.

The four pictures the teacher chose to include as an introduction in both cycles thematised the increasing temperature on the Earth by portraying drought, fire, and melting glaciers. The oral activity in class was high in both cycles when the pupils discussed these pictures. Together with the teacher, the pupils in both cycles discussed two of the pictures and how they were divided in two. One side of the pictures was described as "bad", featuring drought and polluted air, and the other side was "good" as it was the grass was green and the sky was blue. They further discussed the picture of the Earth in fire, smoke, and flood which resulted in a discussion about the need for a change and that the Earth was in danger. In addition, they discussed the polar bear standing on a small piece of ice and how the temperature change threatened different animals. These four pictures had no written content on them, and yet the pupils had much to discuss based on the meaning conveyed through the pictures. The high activity indicates that the pupils were able to use their multimodal literacy and read the pictures.

## 5.2.2 Reading-aloud Sessions

The majority of critical thinking skills in both learning cycles were revealed during the readingaloud session and the pupils used the pictures actively to discuss what they had heard and seen to explain their thoughts. From my observation in Learning Cycle One, the pupils paid attention to both the text and pictures by discussing the content of some of the pages based on what they saw in the pictures and what the teacher read. However, in our revision, we discussed that the teacher should provide the pupils with more information about multimodality before reading to get the pupils to examine and analyse the pictures regardless of when the teacher stops to talk about them. Making the pupils in Learning Cycle Two explicitly aware of how both words and pictures convey meaning made the class able to discuss why both pictures and text are important when reading a picturebook. The pupils expressed that they found it easier to understand the text by being able to look at the pictures, one of the pupils in Learning Cycle Two said; "If you don't understand the text, you can look at the picture" when the teacher asked why it is important to read both text and pictures. The pictures provided the pupils with visual support, which helped them interpret and engage with the content. Another pupil in Learning Cycle Two expressed that it was "More fun" to read a book with pictures. The pupils' statement about it being more fun with pictures, corresponds with a statement made by the teacher in the evaluation session where she said "Even if it is in a way a childish book, perhaps, for many, it really wasn't. When I sat and read, there were a lot of pupils who, it was in both groups, were very focused and listening and were very engaged. I saw that they looked at the pictures, and looked at the pages, and listened". Based on the conversation with the teacher and the observation, it seemed like the picturebook appealed to the pupils.

The picturebook and the interactive dialogue-based reading-aloud sessions resulted in authentic dialogues about the picturebook and the topic which made the pupils reflect and explore both in Learning Cycle One and Two. By using the pictures actively and asking open-ended questions, the teacher made the pupils think about the topic. The pictures made it possible to discuss the topic in deeper detail as they made it easier for the pupils to understand the English language, and the pupils had good reflections about the topic and what they saw on the different pages. Moreover, the teacher made the pupils discuss both the text and the pictures and in what way they were connected to each other. An important improvement in Learning Cycle 2 we made from our experiences from Learning Cycle 1 was how the teacher displayed the picturebook while reading aloud. In the first lesson, the teacher only used the picturebook and held it in a way that the pupils could see the pictures. As a result of this, the teacher experienced

that the pupils lost focus and we decided to display the picturebook on the screen to ensure that every pupil got to see all the pictures. This change made it possible for the teacher to discuss the pictures with the pupils to an increasing extent. In addition, the pupils could examine the pictures in greater detail when the pages were displayed on the screen as both modes of communication were available and accessible.

There are multiple benefits of including picturebooks in the classroom, and a finding in this study is that with the inclusion of two modes (text and pictures), the pupils used their multimodal and critical literacy when discussing. They discussed both the written text and the pictures in both learning cycles. As mentioned, when the teacher introduced the picturebook, the pupils were asked to look at the cover and discuss what they thought this picturebook was about. The pupils in Learning Cycle One used their multimodal literacy to indicate that the people portrayed protested against climate change. The pupils pointed out the illustration of our world, flowers, water, and the posters the people were holding. In addition, they discussed polluted air due to the picture of airplanes and the factories' emissions on the left side of the cover. One of the pupils in Learning Cycle One suggested that "the air on the left side might be grey because of the airplane and the factories". An example from Learning Cycle Two where the pupils demonstrated both multimodal and critical literacy was when the pupils were told to look at the cover and discuss what they thought this picturebook was about. They mentioned that the people in the picture walked toward a brighter future. The pupils made this point based on the polluted air with factories and airplanes on the left side, and that the people walked towards the right side where the air looked clean. They critically examined the page by using their prior knowledge about pollution to approach the text. Both in Learning Cycle One and Two the pupils agree that the left side of the front cover was a contrast to the clean air on the right side portraying clean air, flowers, and bees.

During the reading session, the teacher stopped to talk about what they thought was happening on some of the pages and the pupils were able to use their multimodal and critical literacy actively when analysing the pages. On the page illustrating the deforestation of the rainforest, one pupil in Learning Cycle Two said, "If we do that [deforestation], what will the animals do?". This question illustrates both environmental awareness and critical thinking skills as the pupil was critical of what humans are doing and questioned the consequences based on what was shown in the pictures. By discussing the picturebook and that page, the pupil was able to express own thoughts based on what (s)he read and saw. This further developed into a discussion about what we can do, and that it is our responsibility to help the Earth become a better place to live for both humans and animals. The teacher invested considerable time in reading the picturebook with interactive dialogues. This resulted in a classroom where the pupils had time to examine both text and pictures, revealing their critical literacy as they collectively discussed the content and message of the picturebook based on what they heard and saw.

#### 5.2.3 Pupil Discussions

The pupil discussions in both Learning Cycle One and Two resulted in good reflections and critical literacy through the didactic activity called "Walk and Talk". As previously noted, this activity resulted in classrooms where the pupils were engaged and shared their thoughts and reflections in both cycles. The questions for this activity were "What are your thoughts about the book and topic?", "Why do you think this book is written", "Do you think this topic is important", and "What do you think about the pictures in the book? Did they tell you anything?". During our evaluation after Learning Cycle Two, the teacher commented on the pupils' efforts by stating "I think they [the pupils] certainly did a great job here. I heard it when they were working, both talking to their learning partners and in groups, they talked about the topic, and they had a lot of good thoughts". The pupils were engaged in the activity but some of the pupils were only able to discuss the questions with one or two peers. The pupils were eager to discuss more, which would have resulted in even more critical thinking if they had more time. Consequently, a finding based on this activity and our evaluation of the lesson is that the pupils would have gained a greater learning outcome if we had more time or fewer activities in our lesson plan.

In addition, due to the limited time and many discussions in the reading-aloud session, the book talk was not as successful as hoped in either Learning Cycle One or Two. As described in the theory about CT&BT, the discussion was supposed to go around in a circle, where everyone got to share at least one of their thoughts based on their discussions in the previous activity. The circle was tested out in Learning Cycle One, but the organisation of this took time from the activities planned for the lesson. In addition, sitting in a circle became a distraction to some pupils and based on my observation and the teachers' reflection it seemed like many of the pupils were distracted by this way of seating which resulted in a lack of focus. The teacher said in our revision that "I kind of saw that it was very easy for them to lose focus when they were sitting like that [...] and it can be because they are not used to sitting like that" where she further

expressed "That's maybe why I wasn't good enough to conduct the conversation the way I intended, because I felt that say five of them didn't even look at me. They were doing something completely different". As a result of these reflections, the pupils sat at their own desks in Learning Cycle Two. In addition, a focal point of CT&BT is that all pupils are going to share their thoughts with the whole class. As a result of our revision and discussion about CT&BT, the teacher asked a greater number of pupils in Learning Cycle Two. However, due to the time available, not all the pupils were able to share their reflections. Moreover, in the theory, Roche highlights idea that "we get ideas while listening to others", which was given little attention in the classrooms. The idea was not mentioned in Learning Cycle One, but the teacher mentioned it in the second learning cycle. Even if it was included in the lesson, my impression is that it did not result in any significant changes in how the pupils used their critical thinking skills as the discussion did not go around the cycle as described in Roche's approach and not all the pupils got to share their thoughts. Nevertheless, the pupils in both cycles were encouraged to use their critical literacy skills which resulted in many good thoughts and reflections when discussing the picturebook and topic, which made this a successful start on CT&BT as an approach in the classroom. The teacher asked open-ended questions and asked them to elaborate on their thinking to bring out more critical thinking based on what they had read and seen. If we were to do this lesson again, we concluded in our evaluation that we would exclude CT&BT as one activity alone and rather use even more time to discuss during the reading aloud-session and on "Walk and Talk". These activities engaged the pupils and they got to share a lot of their critical thinking with their peers. (Birkeland, Mjør, & Teigland, 2018)

#### 5.2.4 Semi-Structured Group Interviews

Just as with the data from the field notes and the transcription of interviews with the teacher, the data found in the group interviews also indicated that the pupils liked working with this picturebook and that they have a great amount of multimodal literacy. The pupils participating in the group interview in Learning Cycle One expressed that they found the pictures nice and aligned with the written text. When I asked about how they thought it was to learn about the topic of sustainability through a picturebook, they said it was "much more fun and exciting" without any further elaboration. This indicates that the pupils found the topic accessible through the picturebook and that the pictures helped capture their interest and engagement. The pictures provided an opportunity for emotional and active involvement as the teacher actively used the pictures and made the pupils reflect on their own thoughts and opinions.

The pupils participating in the group interview in Learning Cycle Two had many interesting reflections that underscored their multimodal literacy and their thoughts about using picturebooks to learn about sustainability. The pupils expressed that they thought it was positive to use a picturebook in English teaching, where one said "Many of us do not know very much English. So it becomes a little easier if there are more books like this when we read in English", further the same pupil explained her statement by linking it to an example from the picturebook, "It says, 'we must use less fuel' because there is a lot of muddy wind there, you can look at the picture, and it would probably have been a little more difficult to understand if there hadn't been a picture there". This was something the other pupils agreed on as the pictures helped them understand the meaning as not all of them knew a lot of English. Their positive response to using picturebooks when learning English indicates the significance of multimodal literacy in a language learning context as visual support can enhance understanding and accessibility to all pupils. Nevertheless, even if they found the pictures helpful, one pupil expressed "I think it [the picturebook] was boring because it was little text" and further explained that she wished there was more text as the pupil found the written language of the picturebook to be understandable.

During the second group interview, we delved into several double-page spreads from the picturebook. As the discussion unfolded and the pupils shared their thoughts and observations, it became evident that they were actively using their multimodal literacy. They were effectively relying on various modes of communication. As the pupils discussed the pages, they demonstrated their ability to use both written text and pictures to comprehend the content to create meaning. The pupils used the pictures actively when discussing and explaining the meaning conveyed in the written text. As mentioned, one of them expressed that she understood the phrase "We must use less fuel" by referencing the pictures of polluted air around the cars in one of the pictures. This example demonstrates the pupil's skill in interpreting and linking the written text with the visual mode presented in the pictures. Moreover, when discussing a page with the phrase "We're marching, we're singing, we're banging the drum ... And we will not stop until something is done!", one of the other pupils used the pictures and stated that she thought the people in the pictures were "protestants and they do everything they can to stop the bad that is happening", connecting it back to the pictures portraying polluted air. When we discussed the last page portraying many people joining the movement, one of the pupils said, "It tells us about how many people are fighting for a better climate" and another pupil said, "They are protesting against climate change". Further, the pupils discussed the different climate-friendly illustrations present on the last page, linking them back to previous pages. To explain the concept of coral bleaching, the pupils used the pictures actively to describe how the corals went from colourful in an ocean filled with fish, to grey and white in an ocean filled with garbage and no fish. Moreover, one of the pupils highlighted that water drops were present on almost every page of the picturebook. She further reflected on the need for clean water stating "Because the water gets polluted by the air, and too much garbage gets in the ocean" which demonstrates that the pupil used the different modes to critically think about the meaning.

The data considering critical literacy were limited in the first group interview. The pupils' answers were short and consisted mostly of information about how they experienced the activities in the lesson. One of the boys said he found the picturebook interesting due to its topic but did not elaborate on his answer. The group experienced the activity "Walk and Talk" exciting and they were able to discuss and think about the topic with their peers. They found the questions for this activity easy, and they found it easy to both listen and talk about them. The pupils noted that the questions prompted them to think about the topic from different perspectives, indicating the development of critical literacy. They also liked sharing their thoughts with their peers when walking around. However, the pupils participating in Learning Cycle Two expressed that they found the allocated time for "Walk and Talk" was too short by stating "We were given little time" and "We didn't even finish", indicating motivation and interest towards the activity of sharing their thoughts with each other.

In the second interview, much of the data related to critical literacy revolved around discussions demonstrating their environmental awareness and their reflections on the lesson and their respond to the picturebook. A statement from one of the girls showed critical reflections about the picturebook as she thought the picturebook was a bit boring "because it's about climate, and I'm not that interested in climate, but I learned a bit about climate". Her statement demonstrates critical thinking skills as she actively engaged with the ideas presented and made a judgment of the picturebook and its topic. Further, the pupils expressed that they liked the teacher's way of using the picturebook to make them think as it made them reflect during the reading. This aligns with critical literacy and CT&BT as the interactive dialogue when discussing the picturebook resulted in authentic conversations about the content and the topic where the pupils were able to discuss their thoughts based on their experience with the picturebook. One of the pupils remarked that by reflecting during the reading session likely enhanced their memory, stating "We probably remember it a little better". This might result in a deeper understanding

of the topic and contribute to deep learning where they will be able to adapt their new knowledge into new contexts.

The second interview involved reflective discussions as we discussed some of the pages. One of the girls shared her thoughts when we were discussing pollution saying, "It is probably because there are too many factories". She used their multimodal and critical literacy to discuss how the authors have used language and pictures to portray a message of why the air is polluted. She used the represented images and text and linked them to her knowledge about what is going on in the world and their interpretation of pollution. As mentioned in the section about environmental awareness, this group discussed the impact adults have on the environment compared to children. One of the statements from the interview is "It does not apply as much to the children as it does to adults. It is the adults who drive cars and children bicycle". This was expressed when the pupils discussed how adults affect the climate and she thought children were more friendly towards the environment. The same girl expressed that she thought it might be better in the future as pupils learn a lot about the environment and said, "and then they [pupils] probably know more about pollution when they are older, then they probably drive less". This example indicates that the girl uses her critical thinking to respond to the idea and share her independent thoughts about climate change and the future. She critically thought about the topic and used her reflections to share her perceptions about the future. The discussion further developed into discussing what they could do to inform their parents based on what they learned at school. One of the girls said, "They [the pupils] can ask their parents not to drive that much" and another said, "And not throw plastic or anything else in nature". The discussions about pollution prompted the pupils to reflect on global issues and the impact of human activities on the environment. These conversations served as critical reflection, encouraging pupils to consider human actions and their broader implications. By responding to the picturebook, the pupils were able to examine and ask questions about sustainable development. In conclusion, the insight from the interviews underscores the power of critical thinking skills in fostering engagement, understanding, and actions among pupils.

To sum up the findings of using a picturebook to promote multimodal and critical literacy, it is evident that the pupils used their multimodal literacy when interacting with the picturebook, effectively including textual and visual elements to enhance their understanding. The interactive discussions prompted by the pictures enabled the pupils to respond to the text and critically share their interpretations and reflections, demonstrating their growing proficiency in multimodal and critical literacy. Moreover, the feedback gathered from group interviews underscored the positive impact of employing picturebooks as educational tools, particularly for pupils with varying levels of English proficiency. While some pupils expressed a preference for more textual content, the majority found the inclusion of pictures to be helpful and created engagement. Overall, the successful integration of multimodal and critical literacy not only facilitated a deeper understanding of complex topics, but also fostered a sense of enjoyment and enthusiasm for learning among the pupils.

# 6 Discussion

In this chapter, the results presented in Chapter 5 will be discussed in light of theory and previous research. Through this chapter, I will discuss the multimodal and ecocritical outcomes of using *Like the Ocean We Rise* in the classroom. It will be divided into two sections where I first discuss the main research question "In what way can the picturebook *Like the Ocean We Rise* be used in a Year 5 classroom as part of a lesson study project focusing on environmental awareness and critical literacy?". This question will be discussed under the headline "Literature-based Ecopedagogy" where I discuss the didactic method used, its findings, and how it is linked to ecopedagogy and ecocriticism. The subordinate research questions "In what way do the pupils engage with this literary text and its pictures?" and "What are the pupils' perspectives on using picturebooks to learn about sustainable development" will be discussed in section 6.2 which will involve a discussion of how the pupils' environmental awareness was expressed through their multimodal literacy and critical literacy.

# 6.1 Literature-based Ecopedagogy

As demonstrated in the method chapter and evidenced by the findings, the implementation of the picturebook has been successful according to the learning objectives: "I know what climate change is", "I can read/listen to an English-language picturebook" and "I can discuss what this book is about by looking at written text and pictures". Moreover, the overall purpose of this lesson study was successful as the pupils got to share their environmental awareness and critical literacy by interacting with the picturebook and each other. There have been multiple studies underscoring the important role of literature when including ecopedagogy and ecocriticism in the classroom, and Rebecca L. Young argues that a key solution to preparing young people for climate crises is through a literature-based ecopedagogy (2018, p. 13). Ecopedagogy aims to develop environmental literacy where the learners become aware of how the environment and humans interact (Gaard, 2009, p.326; Thor & Karlsudd, 2020, p. 1). Moreover, Tørnby argues that picturebooks can be used to address sustainability and its ideas directly or indirectly (2020, p. 81). Like the Ocean We Rise addresses environmental issues directly which can offer reflection and critical thinking about the topic. Through this study, the teacher and the pupils used the picturebook actively to discuss the topic of sustainable development, and the findings indicate that the pupils saw the connection between the picturebook and their role in the environment. According to Ahlberg, teachers can bridge the gap between literature and realworld events by including literature about environmental issues and encouraging the pupils to respond to them (2021, p. 9). Both in the classrooms and the group interviews the pupils reflected on the important role humans have in protecting life on Earth. The pupils' statement corresponds to the importance of including ecopedagogy in the classroom as climate scientists have stated that there is a need for change, and we need to commit to real solutions if we wish to sustain life on this planet in an ecologically responsible way (Young, 2018, p. 2). *Like the Ocean We Rise* thematise environmental issues and highlight the need to address these issues collectively to make a positive change. The pupils had reflections about the need for collective responsibility where they shared awareness of how human actions can impact the Earth after reading the picturebook. In alignment with the theory presented by Kahn, the picturebook and the classroom discussions effectively promoted a collective understanding of ecological concepts through educational practice by providing the pupils with knowledge grounded in the concept of sustainability (2010, p. 26). Based on my observation the pupils were engaged with the topic and interactive discussion while reading the picturebook the pupils were able to share thoughts about the picturebook and its topic.

In addition, the group interviews with the pupils indicated that the pupils learned more about sustainable development. However, the pupils shared diverse thoughts about the topic. In the first interview, the pupils expressed that they liked the picturebook as they found it exciting to learn more about climate change. They expressed that they already possessed substantial knowledge of the subject before reading the picturebook. Nevertheless, through this picturebook, they were able to learn more and gain a deeper understanding. On the contrary, in the second group interview, some of the pupils expressed that they found the picturebook and the topic boring as they were not that interested in the topic. Their statements do not align with the eagerness further on in the interview where they actively engaged in the discussion of the topic and explored connections between human actions and the environment. They were eager to discuss both the content of the picturebook and their prior knowledge. The participating pupils in the second interview explored the connection between society and ecological systems by discussing their climate-friendly actions and how human actions can affect the climate. The inclusion of this picturebook made the pupils reflect on how humans contribute to pollution and what we can do to pollute less. This aligns with the theory presented by Misiaszek where he states that ecopedagogy should be centred on better understanding the connections between human acts of environmental violence (2020a, p. 1). Misiaszek also states that the focus of ecopedagogy is not to teach the pupils what to think, but rather how to deconstruct environmental issues (2020b, p. 617). The pupils in both cycles used their prior knowledge and

the information presented by the picturebook to reflect on connections between literature and the environment. Like the pupils in the interview in Learning Cycle One, the pupils participating in the interview in Learning Cycle Two expressed that they knew a lot from before, but that the picturebook and its topic provided them with further information and knowledge. Integrating ecopedagogy and ESD in the classroom is important as it can help empower the learners with new information and knowledge needed to become environmentally aware.

The findings presented in Chapter 5 also indicate that picturebooks can be a great pedagogical tool when presenting the topic of sustainable development as the combination of picture and text makes the content more accessible to all pupils as they can rely on the different modes. Anna Birketveit argues that pictures can enable pupils to understand more advanced text than they usually would (Birketveit, 2015, p. 1). A topic such as sustainable development and climate change might be difficult to understand in another language, but by choosing to present the topic through one picturebook, my perception is that the pupils understood the content and topic. By using a picturebook, the pupils in my study could interpret the content based on both text and pictures. Similarly to the study conducted by Cad, Liruso, and Requena (2022), the picturebook created opportunities for pupils to discuss environmental issues and participate in a literary experience around a picturebook. A finding from their study was that picturebooks will expose different modes and the pupils will create meaning by making connections between written words, colours, choice of font, and pictures (Cad, Liruso, & Requena, 2022, p. 114). The result of their study aligns with the result of this study as both studies underscore that the exploration of picturebooks in English language teaching can promote environmental awareness and help contextualise the language. According to Young, picturebooks that address climate issues can be a powerful tool to empower pupils, as stories thematising human behaviour can contribute to climate change (2022, p. 5). The findings obtained from the class observations and the group interviews indicate the beneficial effect of using picturebooks in education, especially for pupils with varying levels of English proficiency as the pictures provide visual support to the written text. It is however important to present the picturebook in a way that will enable the pupils to interpret and mediate the meaning of the text.

#### 6.1.1 Reading Aloud

Lesson One in both cycles included the teacher reading the whole picturebook aloud to the pupils. Based on the observation and the focus-group interviews, the teacher used the book and its pictures actively when reading. From the group interview, the pupils expressed that they

liked the teacher's way of using the picturebook. They expressed that the teacher made them think and reflect during the reading. This result indicates that the teacher's interactive approach of using the picturebook, effectively engaged the pupils, fostering critical thinking and reflection. The teachers' way of reading this picturebook aloud correlates with Nilsson's (2008) study, which focused on teachers' scaffolding roles during read-aloud. These roles include reader; manager and encourager; clarifier or prober; fellow wonderer or speculator; extender or refiner, and language enhancer and facilitator. As previously noted, when analysing the data I recognised that some of the scaffolding roles presented in Nilsson's study aligned well with the way the teacher in my study read the picturebook aloud to the pupils. Both in Nilsson's study and my study, the teachers applied scaffolding strategies when reading aloud to pupils. The teachers in both studies explored the picturebook they were reading together with the pupils and guided the pupils through the reading process to make them explore and develop their critical thinking skills which are related to the scaffolding roles as the reader, and clarifier or prober. As the role of readers, the teachers in Nilsson's study and the teacher in my study read the pictures and commented on the illustrations. Moreover, the teachers in both studies elaborated on the content while reading to enhance the pupils' understanding and pointed out interesting elements in the story, which is described as *clarifier or prober*. Additionally, the teachers in both studies used the category introduced by Nilsson as a language enhancer and facilitator (Nilsson, 2023, p. 56). The teacher in my study scaffolded and involved the pupils by including some Norwegian translations to mediate the content. In addition, the teacher in my study invited the pupils with low language proficiency to participate and share their thoughts by including some Norwegian translations. The importance of explaining difficult words was discussed when planning the current lesson study, and the result indicated that it was a good strategy to stop during the reading process to explain, ensuring that all the pupils were able to understand. By taking on these scaffolding roles, the teacher in my study was able to mediate the content of the picturebook in a good way. As presented in Chapter 5, one of the pupils in the second group interview noted that the teachers' scaffolding could improve their memory, saying "We probably remember it a little better". The teacher in my study also used the scaffolding role of a *fellow wonderer* by joining the pupils in meaning-making and speculations. By reflecting and asking questions together with the pupils, the teacher made the pupils think deeply and reflect on what they were reading, which could lead to a more thorough understanding of the topic and support deep learning where the pupils can apply their new knowledge to new contexts. Reading and discussing picturebooks about environmental issues can foster knowledge towards recognition and lead to informed actions as the readers can use the content to explore the effect of human actions on the environment (Young, 2018, 2022). By taking the role of a *fellow wonderer*, the pupils could also recognise the collective responsibility everyone, including the teacher, have in order to preserve life on Earth, which is essential in ecopedagogy.

### 6.1.2 Discussing the Picturebook Critically

Based on the reading-aloud session and the content of the picturebook, the pupils discussed their thoughts with their peers in the activity called "Walk and Talk". As mentioned, the teacher thought the lesson would be fine without any writing activities as long as we included an active activity. The teachers' expectations turned out to be correct, and the pupils enjoyed working on this task. By reading the picturebook with an environmental narrative the pupils were able to have conversations about climate science in the classroom (Young, 2022, p. 5). To scaffold the pupils who found English difficult, the teacher chose to hand out pieces of paper with the questions we wanted the pupils to discuss with their peers written in both English and Norwegian, which aligns with Nilsson's language enhancer and facilitator (2023, p. 56). Based on my observation, I would say this was a good didactic strategy made by the teacher based on her knowledge of the class and pupils, as it enabled all the pupils to participate in the discussion with their peers. The questions were open-ended to make the pupils critically think about the purpose of the text, which is linked to critical literacy (McNicol, 2016, p. 6). By encouraging the pupils to respond to real-world issues presented in the picturebook, the pupils could discuss the connections between the Earth and literature, described as ecocriticism (Buell, 1995; Garrard, 2023). Based on my observation, the pupils were eager to discuss the questions and share their thoughts which aligns with the teachers' reflections about the pupils' learning outcomes as she said, "They talked about the topic, and they had a lot of good thoughts". In addition to promoting environmental awareness, including ecocritical picturebooks in the classroom can "offer a unique opportunity to practice both critical reading and critical literacy because of the interaction between two different informational modes: printed text and visual images" (Wells, et al., 2022, p. 192). The result of this activity indicates that the pupils liked sharing their thoughts with each other which was confirmed in the group interviews. The pupils experienced this activity as exciting as it made them able to discuss the topic and picturebook with their peers. However, as pointed out in Chapter 5, the group discussed in our evaluation of the lesson study that we thought the learning outcomes could potentially have been better if we had a greater amount of time at our disposal. This aligns with the result where the pupils

stated that they were given too little time and that they did not have the time to finish their discussion.

The limited time available also compromised the learning activity where the pupils were supposed to discuss the picturebook and share their critical thinking skills through the approach of CT&BT. According to the approach, the pupils were supposed to gather in a circle where the teacher reads the picturebook. After reading, the discussion should have gone around the circle where the pupils took turns sharing ideas, agreeing, or disagreeing with each other, and the teacher (Roche, 2022, p. 92). As mentioned, the activity of CT&BT did not go exactly as planned, and the discussion around the circle did not occur in this lesson study. Ideally, the questions the pupils discussed in the "Walk and Talk" task, should have been shared with the whole class. According to Roche (2022, p. 93), the pupils might get new ideas when they listen to their peers, which could have resulted in even more critical literacy. Reflections from the evaluation of this lesson study was the CT&BT could have been organised in a more effective way. As mentioned, due to the limited time available, we discussed that it might have been better to implement the book talk in a greater extend while reading the picturebook, instead of planning for CT&BT as an individual part of the lesson. Nevertheless, the pupils got to share some thoughts and ideas in the reading-aloud and through "Walk and Talk". The teacher used the picturebook actively and asked open-ended questions in both learning cycles, and the questions the class was supposed to discuss in the CT&BT were the same as in "Walk and Talk". The pupils were asked to discuss both written text and pictures during the reading-aloud and the activity, which aligns with the analytical approaches presented in the article by Wells, Morrison, and Lópes-Robertson (2022). Their article focused on three analytical approaches to teaching critical literacy through picturebooks where the pupils should critically analyse the broad representation, analyse the visual, and analyse voices and perspectives in the picturebook (Wells, et al., 2022, p. 193). In both learning cycles, the pupils analysed and discussed the broad representation as they discussed their thoughts about the content and topic based on the front cover and the content of the picturebook. The pupils used their multimodal and critical literacy to share their thoughts based on what they saw or read. In both cycles, the teacher made the pupils analyse the pictures and share what they thought about the pictures. The third analytical approach presented by Wells, et al. was to make the pupils analyse the voices and perspectives in the picturebook which was limited in my study. In my study, the pupils discussed why they thought the picturebook was written during the activity of "Walk and Talk". This question is linked to Luke (2012, p. 4) where he states that one of the classical questions when working

with critical literacy is to ask questions about the purpose of the text. Unfortunately, I do not have any of the pupils' statements written down, as we did not have time to discuss the questions together with the whole class. Even if the result obtained from CT&BT and evidential quotations in this lesson study are limited, I would argue that the pupils got to use their critical literacy. Moreover, the lessons in both cycles were a fair introduction to the approach of CT&BT as the participating teacher adapted the approach in a successful way considering the time available.

#### 6.1.3 Including the Picturebook in the Classroom

Through the description of the lesson study in my method chapter, the result, and the discussion, I have described the way we used the picturebook. In this paragraph, I will give a summary and answer the main research question: In what way can the picturebook Like the Ocean We Rise be used in a Year 5 classroom as part of a lesson study project focusing on environmental awareness and critical literacy? In both learning cycles, the teacher adapted the lesson plan according to the time available and the pupils' language proficiency. The participating teacher used both text and pictures actively when reading aloud and made the pupils discuss how the different modes interacted with each other. The short chunk of text on each page made it important to discuss multimodality with the pupils as the pictures are just as important in conveying the meaning (Birketveit & Williams, 2021, p. 17). Moreover, pictures speak to the reader without words (Tørnby, 2020, p. 16), and the pupils in this study could critically discuss their thoughts about the pictures. By including ecopedagogy and ecocriticism, the pupils were able to discuss the picturebook and how it was related to real-world issues, promoting their environmental awareness. The teacher chose to stop at different pages and discuss the content and its pictures, which made the pupils see the connection between the picturebook and the real world. This aligns with the study conducted by Pantaleo (2020) where she investigated pupils' engagement in slow looking and visual analysis when reading picturebooks (2020, p. 40). By reading and discussing the picturebook slowly, the pupils could reflect on the visual and discuss their thoughts and opinions. I would argue that the teacher's decision to dedicate most of the time to reading the picturebook in both cycles was wise, as this resulted in critical thinking among the pupils even if the other activities were shorter. After all, it is important to bear in mind that there are multiple didactics strategies for including this picturebook in the classroom. A reflection based on this lesson study is that it should be worked with during a period of time to ensure a deeper understanding of the topic and to include more critical literacy. This aligns with one statement from the teacher where she said she liked the picturebook but felt she could have done much more with it if there had been more lessons. Even if it would have been beneficial to work with this material over multiple lessons, the pupils were able to share and discuss some reflective thoughts. The result of this study underscores the efficacy of integrating multimodal literature when promoting environmental awareness and critical literacy among pupils. In the following, I will discuss pupils' perspectives of and engagement with the picturebook *Like the Ocean We Rise*.

### 6.2 Pupils' Engagement with and Perspectives of the Picturebook

Based on the field notes gathered during the observation in both cycles and the transcriptions of the group interviews with the pupils, I will discuss the findings regarding the pupils' engagement with and perspectives of using the picturebook and answer the subordinated research questions: "In what way do the pupils engage with this literary text and its pictures?" and "What are the pupils' perspectives on using picturebooks to learn about sustainable development?"

## 6.2.1 Multimodal Literacy

The pupils were engaged with the topic and the picturebook in both cycles. The teachers' way of using the picturebook ensured that the pupils were able to participate and engage with it. The teacher stopped during the reading session, which made the pupils able to use the picturebook and their multimodal literacy actively when discussing the content. Birketveit and Williams (2021, p. 17) point out that pictures are just as important as the written text in conveying meaning, and the pupils in this study were given the opportunity to discuss both the written text and the pictures. The findings of this study indicate that the pupils used their multimodal literacy as they used the different modes actively when interpreting the content and discussing them with the class. According to Lysne, the inclusion of multimodal literature in language education plays an increasing role as reading multimodal text involves cognitive, motivational, and affective processes, and it is important to consider both the multimodal and aesthetic nature of texts (2023, p. 54). The pupils in this study used the pictures and the aesthetic of the book actively when discussing, and they had reflections regarding the choice of colours and its meaning by describing how the picturebook portrayed climate issues with grey colours, and hope in bright colours. This aligns with Pantaleo's study where she argues that picturebooks can enhance understanding of visual elements, and foster the development of literacy, language, and thinking skills (2012, p. 51). Moreover, previous research has shown that picturebooks are beneficial when learning English as a foreign language as they provide visual support to the written content and that children use the pictures actively when constructing meaning (Birketveit, 2015; Kaminiski, 2013). This corresponds to one pupil's statement that they could look at the picture if they were unable to understand the written text. In the group interview, the pupils expressed that it was beneficial to include picturebooks when learning English as picturebooks help the pupils with limited English proficiency to understand the language and the content. The pupils' statements about the helpfulness of picturebooks underscore the importance of visual support in comprehending a text when dealing with a language that is not their first language. In addition to using the visual support to convey meaning, the pupils used the pictures to understand certain phrases from the picturebook. One of the pupils in the group interview explained that the phrase "We must use less fuel" from the written text in the picturebook might have been more difficult to understand if the picture was absent. This corresponds with the study conducted by Cad, Liruso, and Requena where they found that the illustrations were used to understand phrases Moreover, their study underlines that picturebooks can contextualise words in order to interpret the meaning of the story in a foreign language (Cad, Liruso, & Requena, 2022, p. 109). Another statement from a pupil participating in my study was that it was "more fun and exciting" when learning through a picturebook. This also aligns with the findings in Pantaleo's study where she argues that picturebooks should be included in the classroom as they can promote motivation and engagement (2012, p. 68). In addition to providing visual support and promoting reading motivation, Wells, et al. argue in their study that picturebooks offer opportunities to practice critical reading and critical literacy (2022, p. 192). The pupils can critically discuss the connections between the different modes, which was confirmed by the evidence in my study.

When working with this picturebook, the pupils used the pictures actively to discuss what they had heard and seen to express what they thought about the content of the picturebook and sustainable development. Their multimodal literacy was a foundation for the exposure of critical literacy and environmental awareness as the pupils discussed the written text and the pictures. The inclusion of the picturebook resulted in a reading-aloud session where the pupils used the pictures actively to discuss what they had heard and to explain what they thought. When the class was examining the front cover, the pupils used both text and pictures to explain what they thought the picturebook was about. The discussions were related to the topic of sustainable development where the pupils demonstrated their environmental awareness. They quickly concluded that the picturebook was about climate change and that we should act in order to help the planet. Their statements about the need for knowledge and collective

responsibility match the aim of ecopedagogy and ESD as the pupils explored the connections between human actions and ecological systems. As Kahn (2010, p. 18) describes, ecopedagogy is a pedagogical movement that should provide relevant knowledge based on concepts of sustainability, planetary, and biophilia. By discussing Like the Ocean We Rise and the relation between humans and nature, the pupils in both learning cycles engaged with the picturebook and shared reflections in class and the group interview. This aligns with ecopedagogy as it seeks to enhance an understanding of how ecosystems function and the impact of human actions on the environment by providing information that is relevant to the pupils' everyday lives. Ecopedagogy seeks to foster environmental awareness among pupils (Gaard, 2009), and based on the findings in this study, the pupils engaged with the chosen picturebook which provided good opportunities to foster environmental awareness. While the pupils demonstrated their environmental awareness, they also demonstrated critical literacy skills. The teacher asked open-ended questions which prompted the pupils to respond to the content of the picturebook and critically think about the issue of climate change and the need for a more sustainable future. The interactive dialogues about the picturebook resulted in authentic discussions where the pupils reflected and explored the topic of sustainability.

### 6.2.2 Critical Literacy and Ecocriticism

Critical literacy refers to how the reader approaches a text and aims to teach the pupils how to interrogate texts in order to understand that texts are never neutral (Ives & Crandall, 2014, pp. 203-204). The classical questions when working with critical literacy suggested by Luke (2017, p. 4) are about the purpose and accessibilities of a text. However, in this research, the questions the pupils discussed revolved more around their critical thoughts about the picturebook's content and the topic of climate change. There was one question asking the pupils to reflect on why they think this picturebook was written, but as a result of the shortened book talk, I do not have evidence of their answers. Nevertheless, my impression is that the pupils used their critical literacy when discussing with each other, but ideally their critical literacy should have been shared with the whole class. By sharing with the whole class, the class could further reflect on the idea that we get ideas while listening to others (Roche, 2015). After all, the activity level when discussing the questions was high and the pupils reached the goal of the lesson. The high activity level indicates that the picturebook engaged the pupils as it had some relevance to the pupils' lives. This is important as "critical literacy begins with exploring issues that prompt children to think and talk about social issues that have meaning for them" (Roche, 2015, p. 16). As mentioned, the intention was for the pupils to share their thoughts about the picturebook and the topic in a book talk, which did not go as planned. However, due to the pupils' engagement throughout the lessons, I would argue that this was a successful introduction to CT&BT. Moreover, these lessons might have laid the groundwork for the teacher to delve deeper into discussions about environmental literature in the future.

The engagement with the picturebook in the classroom was high in both learning cycles. However, when it comes to the group interviews, the group in Learning Cycle Two was more engaged with the picturebook as a result of me choosing to discuss some of the pages during the interview. This enabled the pupils to use their multimodal literacy, which resulted in more critical literacy than in the group interview in Learning Cycle One. As previously noted, the answers were short and consisted of little elaboration in the first group interview, and I needed to change my interview practice when conducting the second interview, choosing to discuss some of the pages with the pupils. This resulted in more descriptive answers and reflections as the pictures made the pupils reflect on the relationship between literature and the environment which is the main focus of ecocriticism (Buell, 1995; Garrard, 2023). Meanings are made through different modes (Cope & Kalantzis, 2015; Kress & Jewitt, 2003), and discussing the different modes of the picturebook in the interview, made the pupils elaborate on their answers and share their critical literacy. Collectively, we examined some of the pictures and the pupils shared good reflections and thoughts when interacting with the picturebook. When discussing the pages, the pupils made connections between society and ecological systems, which indicates their environmental awareness. The connection between human actions and the environment was also implied through the discussion revolving around the deforestation of the rainforest. One of the pupils asked the question "If er do that [deforestation], what will the animals do?", she critically questioned human actions, and expressed that it would harm the non-humans. The pupil used the word "we" when asking this question, which indicates a sense of responsibility and a collective understanding of ecological concepts (Kahn, 2010, p.18) that can further empower her to make choices that will be beneficial for the environment. This reflection aligns with critical literacy where the pupil used the representation in the text and linked it to the real world. The result indicates that the pupil actively assessed and analysed the ideas within the text, which Roche (2015) refers to as critical thinking skills. The pupils expressed during the interview that they knew a lot about the topic, but they acquired further and deeper knowledge of it by working with this picturebook. An aspect of the picturebook where the pupils revealed a high level of engagement was when we discussed what happened in the sea. They were eager to discuss coral bleaching, as this was a new phenomenon to them. These results align with Thor and Karlsudd who explain that environmental awareness is a lifelong learning process (2020, pp. 2-3). Further, the results indicate that it is important to include ESD and ecopedagogy in the classroom and that literature can be an effective resource to provide the pupils with new knowledge and information about sustainable development.

Sustainable development is an interdisciplinary topic that can effectively be included in an English lesson even if it is not a part of the English subject curriculum. My impression is that the pupils used their prior knowledge learned in other subjects or contexts when interacting and engaging with this picturebook. When the pupils discussed polar bears and the melting glaciers in the Arctic, they used their prior knowledge actively. The results from the second group interview indicate that they have learned about oil and gasses in other subjects or contexts, as this was not a part of the picturebook's content. The pupils confirmed that they had worked with the topic in other subjects, and they were familiar with the negative effect of increasing water temperature. Including a picturebook about sustainable development in English language teaching can provide opportunities for the pupils to use their prior knowledge and learn more about the topic while learning English. This aligns with the curriculum stating that language learning takes place when working with English texts (Norwegian Directorate for Education and Training, 2019). Further, Brevik and Lyngstad (2020, p. 163) state that reading literature can provide pupils with knowledge of the world and themselves. The pupils can rely on different modes of communication while connecting the new information with prior knowledge. The pupils were able to connect the content of the picturebook to their everyday lives and expressed some critical thoughts about who is responsible for climate issues. Their reflections about the necessity of knowledge to make sustainable choices indicate the importance of including topics about sustainability in school. By including the topic in teaching, the pupils can become more aware and contribute to a more sustainable future.

### 6.2.3 Pupils' Perspectives

When it comes to the pupils' perspectives on using picturebooks to learn about climate change and the promotion of environmental awareness, some of the pupils participating in the first group-interview expressed that they liked the picturebook due to its topic. They said they liked the picturebook and found it exciting to learn more about the climate. On the contrary, some of the pupils participating in the second interview expressed that they found the picturebook boring as they knew a lot of the content and not all of them were interested in the topic of climate change. However, as presented in my result, their statement did not align with their eagerness to discuss. Due to their enthusiasm while discussing, my impression is that the picturebook was informative and provided them with new knowledge. In addition, some of the pupils in the second group-interview expressed that the inclusion of different modes made the content more assessable as they could rely on both written text and pictures. The pupils used the different modes to make meaning of the text as a whole, which is evidence of multimodal literacy (Cope & Kalantzis, 2015; Kress & Jewitt, 2003). However, some pupils participating in the second group-interview thought the picturebook was a bit boring as they liked books with more written text. This indicates that it is important to include a broad selection of literature in the classroom, as pupils have varying language proficiency and different interests. To conclude, there were divided perspectives on using picturebooks to learn about sustainable development, but the majority liked working with this picturebook as they could rely on the different modes. The pupils used the content of the picturebook to reflect on their surroundings and their role in relation to protecting our world, which is referred to as environmental awareness (Thor & Karlsudd, 2020). The results of this study indicate that the pupils were engaged with the literary text, and they used their multimodal literacy to further expand their environmental awareness and critical literacy skills by actively discussing with each other.

## 7 Conclusion

This master's thesis has aimed to examine the connection between education, literature, and environmental awareness within the framework of ESD. It has delved into the critical importance of educating pupils and providing them with knowledge in order to enable them to act ethically and with environmental awareness. Grounded in the Education Act and the Norwegian curriculum's emphasis on critical thinking and environmental awareness, this thesis has investigated the potential of including the picturebook *Like the Ocean We Rise* in a Year 5 classroom. Through a lesson study approach in collaboration with one other master student from INN and one English teacher, we examined didactic approaches to implementing the picturebook and how the pupils engaged with it to learn more about sustainable development.

Based on insight gained from implementing lesson study as a pedagogical approach, I will argue that lesson study can be a powerful strategy for fostering professional development among educators and improving teaching practices. As Olsen and Wølner describe, lesson study is a collaborative research strategy that encourages collaboration among colleagues and professional guidance (Olsen & Wølner, 2017, pp. 14-15). One of the key benefits of conducting a lesson study is the opportunity it provides for educators to discuss and engage in critical reflections. Throughout the interactive process of planning, observing, and revising the lessons in a team, we were able to critically reflect on the activities and approaches used in this study. By collectively discussing pupils' responses and the lesson outcomes, we were able to identify areas for improvement to enhance the learning outcomes. Moreover, this was a collaborative process where we shared thoughts, ideas, and reflections openly with the team. The exchange of perspectives contributed to enriching our pedagogical repertoire by incorporating new ideas and techniques into our practice. Furthermore, engaging in a lesson study can strengthen professional learning and teaching practices. My impressions and reflections after being a part of this lesson study are that the use of lesson study in school is effective for improving pedagogical practices and enhancing professional development. In addition, it has great value for improving learning among pupils as teachers can deepen their understanding of teaching. As previously noted, the lessons within this lesson study were not as successful as hoped due to limited time. However, the overall lesson study was successful as we were able to improve the lesson in Learning Cycle Two. Even if the lesson did not turn out exactly as planned, the impression is that the pupils learned more about the topic of sustainability and used their critical and multimodal literacy. The findings of this thesis also provide valuable insight into the pedagogical potential of literature and the use of picturebooks

when addressing climate change in English teaching. By integrating multimodal and critical literacy, the picturebook was used to engage the pupils and promote meaningful discussions about environmental issues and what we can do to help the planet. This aligns with the aim of ecopedagogy and ecocriticism as the pupils were able to critically engage with the picturebook. As previously noted, ecopedagogy aims to make the pupils able to explore the connections between society and ecological systems by promoting a collecting understanding through education (Gaard, 2009; Kahn, 2010). Rebecca L. Young has argued that a key solution to preparing young people for climate crises is through a literature-based ecopedagogy (Young, 2018, p. 13), and I will argue that *Like the Ocean We Rise* has contributed to preparing the fifth graders by promoting interactive discussions about the topic. Furthermore, the study underscores the benefit of implementing sustainable development as an interdisciplinary topic within English language learning, even if the topic is not directly included in the English subject curriculum.

### 7.1 Further Research

The need for cross-curricular work is an interesting topic for further research, and this thesis can be used as an example of how sustainable development can be implemented in English language teaching. The picturebook could also be included and used in other subjects, and further research can investigate how Like the Ocean We Rise could be used as a part of a crosscurricular project. By using the picturebook as a pedagogical tool in English teaching, this thesis aimed to contribute to L-TECC's objective of integrating literary texts addressing climate change and sustainable development into primary and secondary education. However, more research within this field is needed. Within the field of sustainable development and climate change, it would have been interesting to investigate attitudes toward how to teach without telling the learners what to do and not to do. This is why critical literacy is important when working with literary text. The pupils must be allowed to come up with their own thoughts and reflections, whereas the teachers' job is to provide the pupils with knowledge and information. Moreover, the use of multimodal literature can be implemented with both younger and older pupils, and further research could investigate practical implementations of other literary texts though a lesson study project. It would have been interesting to investigate the effect of including factual texts versus fictional texts. When it comes to environmental literature for children it can be challenging to identify whether the text is factual or fictional as they are adapted to young readers. As described in Chapter 4, I argued that Like the Ocean We Rise is a fictional text based on true events. At the same time, it could be characterised as a factual text as the picturebook presents information and knowledge about the real world. However, there are multiple fictional books thematising climate change either directly or indirectly. Further research could look into the implementation of a fictional text that is not as close to the real world and investigate if it would result in more critical thinking skills among pupils.

### 7.2 Limitations

This thesis has some limitations. The lesson study consisted of a small team of two master students and only one teacher which may limit the diversity of experiences and perspectives. A larger team might have provided a broader range of viewpoints and observations as teachers have varying teaching styles, priorities, and interpretations of both the chosen material and the lessons. In addition, the picturebook was chosen before the planning by the master students and without direct input from the teacher. The teacher accepted the picturebook, but that does not guarantee that the picturebook aligns with her pedagogical choices and the needs of her pupils. Ideally, a more collaborative book selection might have ensured more thorough planning as all the participants in the research group had been a part of the decision. However, due to a short project and limited time, the chosen material was implemented effectively. Another limitation of this study is that not all the pupils had the opportunity to share their thoughts with the whole class, which potentially limited the diversity and depth of the data collected. The use of alternative approaches, such as anonymous written feedback on the questions asked, could have resulted in more evidence of the pupils' perspectives and experiences of using the chosen picturebook to learn about sustainable development. Despite these limitations, the research still holds validity and reliability. The acknowledgement of limitations demonstrates transparency as the detailed description of methods and findings reassures that this study is valid and credible (Creswell & Creswell, 2018, p. 200). Understanding the context allows the reader to interpret the findings and consider how the research can be considered applicable to other contexts. Although the mentioned limitations influence the scope and interpretation of the research, they do not invalidate the findings and results.

As a final remark, I hope that this master's thesis will provide a meaningful contribution to the L-TECC project and further research. By delving into the intersection of ecopedagogy, critical literacy, and multimodal literature, my ambition is that researchers and teachers can build upon the findings and insight presented in this thesis as an example of how lesson study can be used in education and how multimodal literature can be used in English language teaching to promote environmental awareness and critical literacy among young learners.

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## Appendices

### 1. Drafted lesson plan

5th grade

Text: Like the Ocean We Rise

### **Competence** aims:

- read and talk about the content of various types of texts, including picture books
- use simple strategies for language learning, text creation and communication

### Learning objectives:

- I know what climate change is
- I know a few things I can do to help the planet
- I can read/listen to an English-language picture book
- I can discuss what this book is about by looking at written text and pictures
- I can write about a few things I can do for the planet

Lesson 1: Picturebook Activity/aids	Interaction	Procedure	Time
Starting up and pre- reading activities	Teacher- class	<ul> <li>Learning objectives → What do they know?</li> <li>I know what climate change is.</li> <li>I can read/listen to an English-language picture book.</li> <li>I can discuss what this book is about by looking at written text and pictures.</li> <li>Discuss prior knowledge about the topic, have they worked with it in other subjects? What can we do to help our planet? Why is it important that everyone contribute?</li> <li>Talk about multimodality. Can pictures provide additional information? Is it important to read both text and images? What kind of texts include both pictures and written text?</li> </ul> Explain what the class is going to do in this lesson. <ul> <li>Read and discuss one picture book</li> <li>Sit in a semi-cycle, the teacher reads the story slowly, and the pupils study the pictures</li> <li>Discuss the book → "we get ideas while listening to others".</li> <li>The pupils must: look carefully at the pictures, listen carefully, individually thinking, respect others' thoughts, and do not interrupt others.</li></ul>	10 min
Paratext (The book is displayed on the board)		Look at the paratext, what do the pupils think this book is about. Here are some examples which can be talked about: - "Like the Ocean We Rise" what can that mean? - Earth - Solidarity – standing together	5 min

		<ul> <li>From a polluted side (left) to a cleaner side (right)</li> </ul>	
Reading the book aloud	T-C	Vocabulary from the book Vast Treat Take for granted Start a ripple Ancient ice Take charge Make the honeybee thrive Torch Litter Recycle Turn the tide Read the whole book in one slowly while the pupils study the pictures.	10 min
Critical thinking and Book Talk	T-C	After reading, the pupils are told to close their eyes and think individually about what they think about the for book two minutes. - How did you feel as the story was read?	2 min
		<ul> <li>Walk and talk. The pupils will talk with four people, one for each question.</li> <li>What are your thoughts about the book and topic?</li> <li>Why do you think this book is written?</li> <li>Do you think this topic is important?</li> <li>What do you think about the pictures in the book? Did they tell you anything?</li> </ul>	10 min
		Gather back in the circle. The pupils share one or two ideas with the person next to them.	3 min
		<ul> <li>Then the class discussion begins <ul> <li>Who wants to start? Based on the previous questions.</li> <li>If no one wants to volunteer, the teacher starts the discussion.</li> </ul> </li> </ul>	15 min
Rounding up/assessment	T-C	<ul> <li>What have we done this lesson?</li> <li>Assess our Book Talk         <ul> <li>What was good?</li> <li>What could have been better?</li> </ul> </li> <li>Have we reached our learning objectives? (thump up/down)</li> </ul>	5 min

## 2. Lesson Plan, Learning Cycle One

5th grade

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Text: Like the Ocean We Rise

### Competence aims:

- read and talk about the content of various types of texts, including picture books (Y4)
- use simple strategies for language learning, text creation and communication (Y7)

### Learning objectives:

- I know what climate change is
- I know a few things I can do to help the planet
- I can read/listen to an English-language picture book
- I can discuss what this book is about by looking at written text and pictures
- I can write about a few things I can do for the planet

Lesson 1: Picturebook			
Activity/aids	Interaction	Procedure	Time
Starting up and pre- reading activities	Teacher- class	<ul> <li>Learning objectives → What do they know?</li> <li>I know what climate change is.</li> <li>I can read/listen to an English-language picture book.</li> <li>I can discuss what this book is about by looking at written text and pictures.</li> <li>Discuss prior knowledge about the topic, have they worked with it in other subjects? What can we do to help our planet? Why is it important that everyone contribute?</li> <li>Talk about multimodality. Can pictures provide additional information? Is it important to read both text and images? What kind of texts include both pictures and written text? (These questions will be adapted to the pupils)</li> </ul>	10 min
		<ul> <li>Explain what the class is going to do in this lesson.</li> <li>Read and discuss one picture book</li> <li>Sit in a semi-cycle, the teacher reads the story slowly, and the pupils study the pictures</li> <li>Discuss the book → "we get ideas while listening to others".</li> <li>The pupils must: look carefully at the pictures, listen carefully, individually thinking, respect others' thoughts, and do not interrupt others.</li> </ul>	
Paratext (The book is displayed on the board)		Look at the paratext, what do the pupils think this book is about. Here are some examples which can be talked about: - "Like the Ocean We Rise" what can that mean? - Earth	5 min

		<ul> <li>Solidarity – standing together</li> <li>From a polluted side (left) to a cleaner side (right)</li> </ul>	
Reading the book aloud	T-C	Read the whole book in one <b>slowly</b> while the pupils study the pictures. Stop during the reading session and talk about vocabulary.	10 min
Critical thinking and Book Talk	T-C	After reading, the pupils are told to close their eyes and think individually about what they think about the for book two minutes.	2 min
		<ul> <li>Walk and talk. The pupils will talk with four people. Each question will be written down (in English and Norwegian) on a paper which will be given to the pupils.</li> <li>What are your thoughts about the book and topic?</li> <li>Why do you think this book is written?</li> <li>Do you think this topic is important?</li> <li>What do you think about the pictures in the book? Did they tell you anything?</li> </ul>	10 min
		<ul> <li>Then the class discussion begins <ul> <li>Who wants to start? Based on the previous questions.</li> <li>If no one wants to volunteer, the teacher starts the discussion.</li> </ul> </li> </ul>	18 min
Rounding up/assessment	T-C	<ul> <li>What have we done this lesson?</li> <li>Assess our Book Talk         <ul> <li>What was good?</li> <li>What could have been better?</li> </ul> </li> <li>Have we reached our learning objectives? (thump up/down)</li> </ul>	5 min

### 3. Lesson Plan, Learning Cycle Two

### 5th grade

Text: Like the Ocean We Rise

### Competence aims:

- read and talk about the content of various types of texts, including picture books (Y4)
- use simple strategies for language learning, text creation and communication (Y7) -

### Learning objectives:

- -I know what climate change is
- I know a few things I can do to help the planet -
- I can read/listen to an English-language picture book -
- I can discuss what this book is about by looking at written text and pictures -
- -I can write about a few things I can do for the planet

Activity/aids	Interaction	Procedure	Time
Activity/aids Starting up and pre- reading activities	Interaction Teacher- class	<ul> <li>Procedure</li> <li>Learning objectives → What do they know?</li> <li>I know what climate change is.</li> <li>I can read/listen to an English-language picture book.</li> <li>I can discuss what this book is about by looking at written text and pictures.</li> <li>Discuss prior knowledge about the topic, have they worked with it in other subjects? What can we do to help our planet? Why is it important that everyone contribute?</li> <li>Talk about multimodality. Can pictures provide additional information? Is it important to read both text and images? What kind of texts include both pictures and written text? (These questions will be adapted to the pupils)</li> </ul>	Time 10 min
		<ul> <li>Explain what the class is going to do in this lesson.</li> <li>Read and discuss one picture book</li> <li>The teacher reads the story slowly, and the pupils listen while they study the pictures on the screen</li> <li>Discuss the book → "we get ideas while listening to others".</li> </ul>	
Paratext (The book is displayed on the board)		Look at the paratext, what do the pupils think this book is about. Here are some examples which can be talked about: - "Like the Ocean We Rise" what can that mean? - Earth - Solidarity – standing together - From a polluted side (left) to a cleaner side (right)	5 min

Reading the book	Т-С	Read the whole book in one <b>slowly</b> while the	10
aloud	- C	pupils listen and study the pictures on the screen.	min
		Stop during the reading session and talk about	
		vocabulary.	
Walk and Talk	P-P	After medine the numile are told to do at their	2
walk and Talk	P-P	After reading, the pupils are told to close their eyes and think individually about what they think	 min
		about the for book two minutes.	
		Walk and talk. The pupils will talk with four	10
		people. Each question will be written down (in	min
		English and Norwegian) on a paper which will be	
		given to the pupils.	
		- What are your thoughts about the book	
		and topic?	
		- Why do you think this book is written?	
		<ul> <li>Do you think this topic is important?</li> <li>What do you think about the pictures in</li> </ul>	
		the book? Did they tell you anything?	
Critical thinking and	т-с	- Have a classroom discussion based on the	18
Book Talk		previous questions. All the pupils should	min
		try to say something about each question	
		based on their own thoughts and what	
		they talked about in the task called Walk	
		and Talk	
		<ul> <li>Who wants to start? If no one wants to</li> </ul>	
		volunteer, the teacher starts the	
Davus din a	TC	discussion.	
Rounding up/assessment	Т-С	<ul> <li>What have we done this lesson?</li> <li>Assess our Book Talk</li> </ul>	5 min
up/assessment		- Assess our book Talk - What was good?	
		- What was good? - What could have been better?	
		Have we reached our learning objectives? (thump	
		up/down)	

# 4. Observation Form, Learning Cycle One

	Focus of observation Lesson 1 (Before)	Observation lesson 1 ( <u>During</u> )	Reflections lesson 1 (After)
Starting up	Is the plan for the lesson		
+ pre-reading activities	reviewed clearly?		
	How does the teacher keep the dialogue going? Does she ask follow-up questions?		
	In what way do pupils get time to think?		
	Do the pupils participate in the conversation?		
	What do the pupils understand from the front page by looking at the picture and title? Multimodal literacy.		
During	Are the pupils revine		
Reading	Are the pupils paying attention when the teacher is reading aloud, or is their focus elsewhere?		
	Does the teacher pause		
	during the reading and discuss vocabulary?		
Book Talk	Is the assignment presented in a clear way?		
	How are the dialogue with the pupils? Are they active and talks about the questions?		
	CT&BT Are the questions posed clearly? Adapted to the pupils?		
	1	1 	1
	Does the teacher actively maintain the flow of dialogue during class discussions?		
	To what extent do pupils use the pictures to answer questions from the teacher?		
	Do the pupils discuss the topic and book?		
Assessment	Are the pupils involved when assessing the lesson and their book talk?		
	In the students' opinion, have they successfully met the objectives of the lesson? (Indicate with thumbs up or thumbs	Up: To the side: Down:	

Immediately after class: What worked well? Why did this work well? What can be improved? How can it be improved?

## 5. Observation Form, Learning Cycle Two

### Competence aims:

### Learning objectives:

- read and talk about the content of various types of texts, including picture books (Y4)
- use simple strategies for language learning, text creation and communication (Y7)
- I know what climate change is.
- I know a few things I can do to help the planet.
- I can read/listen to an English-language picture book.
- I can discuss what this book is about by looking at written text and pictures.

## Lesson 1: Critical Thinking and Book Talk

Activity	Procedure	Observation notes and reflections
Starting up and pre- reading activities T-C	<ul> <li>Learning objectives → What do they know?</li> <li>Discuss prior knowledge about the topic, have they worked with it in other subjects? What can we do to help our planet? Why is it important that everyone contribute?</li> <li>Talk about multimodality.</li> <li>Can pictures provide additional information? Is it important to read both text and images? What kind of texts include both pictures and written text? (These questions will be adapted to the pupils)</li> </ul>	Does the teacher activate their prior knowledge? Does the teacher talk about multimodality? In what way? Are the pupils active? Do they get time to think?
	<ul> <li>Explain what the class is going to do in this lesson.</li> <li>Read and discuss one picture book.</li> <li>The teacher reads the story slowly, and the pupils listen while they study the pictures on the screen.</li> <li>Discuss the book → "we get ideas while listening to others".</li> </ul>	Is the plan for the lesson reviewed in a clear way?
Paratext (The book is displayed on the board) T-C 10 min	Look at the paratext, what do the pupils think this book is about.	Does the teacher give the pupils time to think? Does the pupil participate in the discussion? Follow-up questions?
Reading the book aloud T-C 5 min	Read the whole book in one <b>slowly</b> while the pupils listen and study the pictures on the screen. Stop during the reading session and talk about vocabulary.	Are the pupil's paying attention to what is being read to them? Does the teacher stop and talk about vocabulary?

Walk and Talk	After reading, the pupils are told to	Is the task clearly presented?
	close their eyes and think individually	is the task cleany presenced.
P-P	about what they think about the for	
12 min	book two minutes.	
		Are the questions asked in a clear way?
	Walk and talk. The pupils will talk	
	with four people. Each question will be written down (in English and	
	Norwegian) on a paper which will be	
	given to the pupils.	
	What are your thoughts	How is the dialogue between the pupils?
	<ul> <li>What are your thoughts about the book and topic?</li> </ul>	
	- Why do you think this book is	
	written?	
	- Do you think this topic is	
	important? What do you think about the pictures	
	in the book? Did they tell you	
	anything?	
Critical		   In what was done the treation has the distance as!~ −2
Critical thinking and	Have a classroom discussion based on the previous questions. All the pupils	In what way does the teacher keep the dialogue going?
Book Talk	should try to say something about	
	each question based on their own	
T-C	thoughts and what they talked about	
18 min	in the task called Walk and Talk.	
	Who wants to start? If no one wants	
	to volunteer, the teacher starts the	
	discussion.	
Rounding	What have we done this lesson?	Are the pupils involved when assessing the lesson?
up/assessment	Assess our Book Talk	
T-C	- What was good?	
T-C 5 min	- What was good?	
	<ul><li>What was good?</li><li>What could have been</li></ul>	
	<ul> <li>What was good?</li> <li>What could have been better?</li> </ul>	
5 min	<ul> <li>What was good?</li> <li>What could have been better?</li> <li>Have we reached our learning objectives? (thump up/down)</li> </ul>	
	<ul> <li>What was good?</li> <li>What could have been better?</li> <li>Have we reached our learning</li> </ul>	
5 min Reflections	<ul> <li>What was good?</li> <li>What could have been better?</li> <li>Have we reached our learning objectives? (thump up/down)</li> </ul>	
5 min Reflections	<ul> <li>What was good?</li> <li>What could have been better?</li> <li>Have we reached our learning objectives? (thump up/down)</li> </ul>	
5 min Reflections	<ul> <li>What was good?</li> <li>What could have been better?</li> <li>Have we reached our learning objectives? (thump up/down)</li> </ul>	
5 min Reflections	<ul> <li>What was good?</li> <li>What could have been better?</li> <li>Have we reached our learning objectives? (thump up/down)</li> <li>What worked and why?</li> </ul>	
5 min Reflections	<ul> <li>What was good?</li> <li>What could have been better?</li> <li>Have we reached our learning objectives? (thump up/down)</li> </ul>	
5 min Reflections	<ul> <li>What was good?</li> <li>What could have been better?</li> <li>Have we reached our learning objectives? (thump up/down)</li> <li>What worked and why?</li> </ul>	
5 min Reflections	<ul> <li>What was good?</li> <li>What could have been better?</li> <li>Have we reached our learning objectives? (thump up/down)</li> <li>What worked and why?</li> </ul>	
5 min Reflections	<ul> <li>What was good?</li> <li>What could have been better?</li> <li>Have we reached our learning objectives? (thump up/down)</li> <li>What worked and why?</li> </ul>	
5 min Reflections	<ul> <li>What was good?</li> <li>What could have been better?</li> <li>Have we reached our learning objectives? (thump up/down)</li> <li>What worked and why?</li> </ul>	
5 min Reflections	<ul> <li>What was good?</li> <li>What could have been better?</li> <li>Have we reached our learning objectives? (thump up/down)</li> <li>What worked and why?</li> </ul>	
5 min Reflections	<ul> <li>What was good?</li> <li>What could have been better?</li> <li>Have we reached our learning objectives? (thump up/down)</li> <li>What worked and why?</li> <li>What did not work and why?</li> </ul>	
5 min Reflections	<ul> <li>What was good?</li> <li>What could have been better?</li> <li>Have we reached our learning objectives? (thump up/down)</li> <li>What worked and why?</li> <li>What did not work and why?</li> </ul>	
5 min Reflections	<ul> <li>What was good?</li> <li>What could have been better?</li> <li>Have we reached our learning objectives? (thump up/down)</li> <li>What worked and why?</li> <li>What did not work and why?</li> </ul>	
5 min Reflections	<ul> <li>What was good?</li> <li>What could have been better?</li> <li>Have we reached our learning objectives? (thump up/down)</li> <li>What worked and why?</li> <li>What did not work and why?</li> </ul>	
5 min Reflections	<ul> <li>What was good?</li> <li>What could have been better?</li> <li>Have we reached our learning objectives? (thump up/down)</li> <li>What worked and why?</li> <li>What did not work and why?</li> </ul>	

### 6. Interview Guide

## Interview guide, conversation with students:

- How do you feel about being read to?
- What do you think about this picture book?
  - The language
  - The illustrations
  - Did the pictures help you understand?
- Walk and Talk: How did you find this task?
- How was it for you to share your thoughts aloud with the class?
- How did you find having an English lesson focused on listening and speaking?
  - o Why?
- Is there anything that could have made this lesson better?
- How do you think the teacher's questions were?
  - Did they engage you?
  - Did they make you think about the theme?
  - Did they help you understand?
- Have you read any books about climate change before?
- What did you learn in this lesson?

### 7. Consent Form in Norwegian, Teacher

## Informasjonsskriv om forskningsprosjekt: Litteratur og bærekraftig utvikling

### Bakgrunn og formål

I forbindelse med våre studier ved Høgskolen Innlandet, fakultet for lærerutdanning og pedagogikk, skal vi skrive to masteroppgaver innen engelsk didaktikk. Formålet med dette prosjektet er å undersøke hvordan litteratur kan brukes i undervisningen til å fremme bærekraftig utvikling i engelskfaget på mellomtrinnet. I samarbeid med deg ønsker vi å utvikle et undervisningsopplegg om bærekraftig utvikling som tar utgangspunkt i litteratur på engelsk. Dette undervisningsopplegget vil bli testet ut i engelskundervisningen din. Studien innebærer planlegging og observasjon av undervisning, innsamling av elevtekster og intervju med en gruppe elever og deg som lærer.

Målet med dette prosjektet er å undersøke hvordan en bildebok og dikt som handler om miljø og bærekraftige valg vil bli mottatt av elevene og hvordan vi som team kan planlegge, gjennomføre og evaluerer denne undervisningen. Det vil være to ulike fokusområder på masteroppgavene. Den ene vil fokusere på hvordan elevene responderer på undervisningen, tekstene og temaet. Den andre vil fokusere på selve undervisningsøkten i sin helhet og som har blitt utarbeidet i vårt samarbeid.

#### Hvem er ansvarlig for forskningsprosjektet?

Høgskolen i Innlandet er ansvarlig for prosjektet. Veilederne for masteroppgavene er Marit Elise Lyngstad, Heidi Silje Moen, og Björn Sundmark.

Heidi Aliisa Karhu og Kristine Lundby er masterstudentene som kommer til å gjennomføre prosjektene.

### Hvorfor får du spørsmål om å delta?

Din skole har inngått et samarbeid med forskningsprosjektet *Literature, Teacher Education and the Climate-ready Classroom* ved Høgskolen i Innlandet, og det er fordi du er engelsklærer ved denne skolen at du får spørsmål om du vil delta.

#### Hva innebærer deltakelse i studien?

Metoden som vil bli brukt i dette prosjektet er «Lesson study». Dette er en metode som er med på å styrke læreres pedagogiske arbeid. Denne metoden består av planlegging, gjennomføring og evaluering. I forkant av undervisningen ønsker vi å ha faglige samtaler med deg hvor vi planlegger undervisningen basert på tekster vi har valgt ut.

Som en del av denne studien vil det foregå observasjon av undervisningen og hvordan elevene responderer på opplegget. Fokuset vil være på undervisningsopplegget og elevenes responser på dette, ikke på deg som lærer. Opplysningene som samles inn gjennom denne observasjonen vil bli notert ned og analysert i masteroppgavene.

Vi ønsker å ha en intervjusamtale sammen med deg etter endt undervisningsøkt. Det vil bli gjort lydopptak av intervjuet. Lydopptaket blir umiddelbart kryptert på telefonen og sendt til et Nettskjema med innlogging som kun studentene har tilgang til. Det vil på forhånd bli laget en intervjuguide med spørsmål som vil bli stilt. Du kan få tilsendt intervjuguiden på forhånd hvis du ønsker det.

### Hva skjer med informasjonen om deg

Alle personopplysninger vil bli behandlet konfidensielt og opplysninger kan ikke tilbakeføres til enkeltpersoner i publiseringen. Det er kun studenter og veiledere som har tilgang til personopplysninger, og vi behandler opplysningene konfidensielt og i samsvar med personvernregelverket. Deltakelse i forskningsprosjektet krever samtykke fra deg. Du vil bli anonymisert og vil ikke kunne gjenkjennes i publikasjonene. Prosjektet skal etter planen avsluttes 30. juni 2024, og da slettes også alle personopplysninger.

### Det er frivillig å delta

Det er frivillig å delta i prosjektet. Hvis du velger å delta, kan du når som helst før ferdigstilling av prosjekt trekke samtykket tilbake uten å oppgi noen grunn. Alle personopplysninger vil da bli slettet.

### Hva gir oss rett til å behandle personopplysninger om deg?

Vi behandler opplysninger om deg basert på ditt samtykke.

På oppdrag fra Høgskolen i Innlandet har Sikt – Kunnskapssektorens tjenesteleverandør vurdert at behandlingen av personopplysninger i dette prosjektet er i samsvar med personvernregelverket.

#### Dine rettigheter

Så lenge du kan identifiseres i datamaterialet, har du rett til:

- innsyn i hvilke opplysninger vi behandler om deg, og å få utlevert en kopi av opplysningene
- å få rettet opplysninger om deg som er feil eller misvisende
- å få slettet personopplysninger om deg
- å sende klage til Datatilsynet om behandlingen av dine personopplysninger

Hvis du har spørsmål til studien, eller ønsker å vite mer om eller benytte deg av dine rettigheter, ta kontakt med:

- Høgskolen i Innlandet ved førsteamanuensis Marit Elise Lyngstad (marit.lyngstad@inn.no)
- Masterstudent Heidi Aliisa Karhu (<u>H3idis@hotmail.com</u>)
- Masterstudent Kristine Lundby (kristine.lundby@hotmail.com)
- Høgskolen i Innlandets personvernombud: Usman Aghar (personvern@inn.no)

Hvis du har spørsmål knyttet til vurderingen som er gjort av personverntjenestene fra Sikt, kan du ta kontakt via:

• Epost: personverntjenester@sikt.no eller telefon: 73 98 40 40

Med vennlig hilsen

Marit Elise Lyngstad

Heidi Aliisa Karhu

Kristine Lundby

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### Samtykkeerklæring

Jeg har mottatt og forstått informasjon om prosjektet Litteratur og bærekraftig utvikling, og har fått

anledning til å stille spørsmål. Jeg samtykker til å delta i:

□ faglig samtale før undervisningen (planlegging)

- observasjon
- intervju etter undervisningsøkt

Jeg samtykker til at mine opplysninger behandles frem til prosjektet er avsluttet

(Navn, dato)

### 8. Consent Form in Norwegian, Parents

### Forespørsel om deltakelse i forskningsprosjekt:

#### Litteratur og bærekraftig utvikling

#### Bakgrunn og formål

I forbindelse med våre studier ved Høgskolen Innlandet, fakultet for lærerutdanning og pedagogikk, skal vi skrive to masteroppgaver innen engelsk didaktikk. Formålet med dette prosjektet er å undersøke hvordan litteratur kan brukes i undervisningen til å fremme bærekraftig utvikling i engelskfaget på mellomtrinnet. Sammen med våre veiledere og engelsklæreren på trinnet skal vi utvikle et undervisningsopplegg om bærekraftig utvikling som tar utgangspunkt i litteratur. Dette undervisningsopplegget vil bli testet ut i klassen til ditt barn. Studien innebærer observasjon av undervisning, innsamling av elevtekster og intervju med en gruppe elever og lærer.

Målet med dette prosjektet er å undersøke hvordan en bildebok og dikt som handler om miljø og bærekraftige valg vil bli mottatt av elevene. Det vil være to ulike fokusområder på masteroppgavene. Den ene vil fokusere på hvordan elevene responderer på undervisningen, tekstene og temaet, mens den andre vil fokusere på selve undervisningsøkten i sin helhet som har blitt utarbeidet i samarbeid med engelsklærer og oss masterstudenter.

#### Hvem er ansvarlig for forskningsprosjektet?

Høgskolen i Innlandet er ansvarlig for prosjektet. Veilederne for masteroppgavene er Marit Elise Lyngstad, Heidi Silje Moen, og Björn Sundmark.

Heidi Aliisa Karhu og Kristine Lundby er masterstudentene som kommer til å gjennomføre prosjektene.

#### Hvorfor får ditt barn spørsmål om å delta?

Ditt barn får spørsmål om å delta siden dette er et samarbeid med engelsklæreren på trinnet. Undervisningsopplegget vil foregå i engelsktimene, og vi ønsker godkjennelse til å observere hvordan elevene responderer på opplegget. Vi ønsker også godkjennelse til å samle inn en tekst som ditt barn skriver i løpet av økten, samt å intervjue hen om hens opplevelse av tekstene. Det er mulig å kun gi samtykke til noen av komponentene dersom det er ønskelig. Dette prosjektet vil fokusere på elevenes respons på temaet og tekstene, ikke deres nivå av kunnskap eller prestasjoner.

#### Hva innebærer deltakelse i studien?

Metoden som vil bli brukt i dette prosjektet er «Lesson study». Dette er en metode som er med på å styrke læreres pedagogiske arbeid. Som en del av denne studien vil det foregå observasjon av elevene som befinner seg i klasserommet. Opplysningene som samles inn gjennom denne observasjonen vil bli notert ned og analysert i masteroppgavene.

Vi ønsker også å danne en fokusgruppe og intervjue fire-seks elever etter endt undervisning. Hvem som blir en del av denne fokusgruppen vil velges ut i samarbeid med lærer på trinnet. Intervjuet vil foregå i trygge omgivelser på skolen, og elevene vil bli intervjuet i gruppe. Det vil bli gjort lydopptak av intervjuet. Lydopptaket blir umiddelbart kryptert på telefonen og sendt til et Nettskjema med innlogging som kun studentene har tilgang til. Det vil på forhånd bli laget en intervjuguide med spørsmål som elevene vil bli stilt. Som foresatt kan du få tilsendt intervjuguiden på forhånd ved å ta kontakt med oss. Vi vil også samle inn elevtekster som produseres som respons til oppgaver gitt i løpet av undervisningsopplegget. Disse tekstene vil bli anonymisert.

#### Hva skjer med informasjonen om ditt barn?

Alle personopplysninger vil bli behandlet konfidensielt og opplysninger kan ikke tilbakeføres til enkeltpersoner i publiseringen. Det er kun studenter og veiledere som har tilgang til personopplysninger, og vi behandler opplysningene konfidensielt og i samsvar med personvernregelverket. Deltakelse i forskningsprosjektet krever samtykke fra elevenes foresatte. Deltakerne vil bli anonymisert og vil ikke kunne gjenkjennes i publikasjonene. Undervisningen vil foregå i klasserommet fra uke 47 til uke 49. Prosjektet skal etter planen avsluttes 30. juni 2024, og da slettes også alle personopplysninger.

#### Det er frivillig å delta

Det er frivillig å delta i prosjektet. Hvis du velger å la ditt barn delta, kan du når som helst før ferdigstilling av prosjekt trekke samtykket tilbake uten å oppgi noen grunn. Alle personopplysninger vil da bli slettet. Det vil ikke ha noen negative konsekvenser for deg eller ditt barn hvis du ikke vil delta eller senere velger å trekke samtykket: det vil ikke påvirke hverken ditt eller ditt barn sitt forhold til skolen eller lærer. De som ikke ønsker å delta i dette prosjektet vil kunne delta i et alternativt opplegg.

#### Hva gir oss rett til å behandle personopplysninger om deg?

Vi behandler opplysninger om deg basert på ditt samtykke.

På oppdrag fra Høgskolen i Innlandet har Sikt – Kunnskapssektorens tjenesteleverandør vurdert at behandlingen av personopplysninger i dette prosjektet er i samsvar med personvernregelverket.

#### **Dine rettigheter**

Så lenge du kan identifiseres i datamaterialet, har du rett til:

- · innsyn i hvilke opplysninger vi behandler om deg, og å få utlevert en kopi av opplysningene
- å få rettet opplysninger om deg som er feil eller misvisende
- å få slettet personopplysninger om deg
- å sende klage til Datatilsynet om behandlingen av dine personopplysninger

Hvis du har spørsmål til studien, eller ønsker å vite mer om eller benytte deg av dine rettigheter, ta kontakt med:

- Høgskolen i Innlandet ved førsteamanuensis Marit Elise Lyngstad (marit.lyngstad@inn.no)
- Masterstudent Heidi Aliisa Karhu (<u>H3idis@hotmail.com</u>)
- Masterstudent Kristine Lundby (kristine.lundby@hotmail.com)
- Høgskolen i Innlandets personvernombud: Usman Asghar (personvern@inn.no)

Hvis du har spørsmål knyttet til vurderingen som er gjort av personverntjenestene fra Sikt, kan du ta kontakt via:

• Epost: personverntjenester@sikt.no eller telefon: 73 98 40 40

Med vennlig hilsen

Marit Elise Lyngstad (Veileder) Heidi Aliisa Karhu og Kristine Lundby (Masterstudenter)

### Samtykkeerklæring

Jeg har mottatt og forstått informasjon om prosjektet Litteratur og bærekraftig utvikling, og har fått

anledning til å stille spørsmål. Jeg samtykker til at ...... (elev) kan:

□ delta i observasjon

delta med innsamlet elevtekst

delta i fokusgruppeintervju

Jeg samtykker til at mitt barns opplysninger behandles frem til prosjektet er avsluttet

(Signert av foresatt, dato)

### 9. Consent Form in Norwegian, Pupils

### FORSKNING: Bildebok om miljø og klima

Sammen med din engelsklærer skal vi lærerstudenter lage et undervisningsopplegg som handler om bærekraftig utvikling. Vi har valgt ut en bildebok og et dikt som handler om hva du og jeg kan gjøre for miljøet og klimaet. Undervisningsopplegget vi lager kommer til å bli testet ut i engelskundervisningen i din klasse enten i uke 47 eller 49. Vi ønsker å finne ut hvordan dere elever synes det er å lære om miljø og klima gjennom å arbeide med bildebok og dikt, og hva dere faktisk lærer.

### HVORFOR BLIR DU SPURT OM Å VÆRE MED?

Du blir spurt om å være med i dette prosjektet siden du er elev i [navn på lærer] sin klasse. Vi må få din og dine foresattes tillatelse til at vi kan være inne i klasserommet og observere dere elever og læreren deres, se på deres elevtekster og til å intervjue noen av dere. Dette står det mer om i brevet som dine foresatte har fått.

### HVA VIL SKJE DERSOM DU DELTAR?

Dersom du deltar vil du bli observert av to studenter og en lærer fra høgskolen mens din engelsklærer underviser, en gruppe elever vil bli intervjuet og din elevtekst vil bli en del av forskningen. Vi ønsker å undersøke hva dere lærer av å jobbe med bildebok og dikt. Det vi finner ut kommer til å stå i to oppgaver som vi studenter skriver, og vi kommer ikke til å bruke navn på verken deg, dine medelever eller læreren din – ingen skal kunne vite hvem vi har observert og snakket med.

### HVA VIL SKJE DERSOM DU IKKE DELTAR?

Det er helt frivillig å delta. Dersom du ikke ønsker å være i klasserommet når vi observerer, vil du få tilbud om å gjøre noe annet. Om du sier nei til å delta får det ingen konsekvenser for deg på skolen.

### Samtykkeerklæring

Jeg har mottatt og forstått informasjon om prosjektet Litteratur og bærekraftig

utvikling, og har fått anledning til å stille spørsmål. Jeg samtykker at jeg kan:

- delta i observasjon
- delta med innsamlet elevtekst
- delta i fokusgruppeintervju

Jeg samtykker til at mine opplysninger behandles frem til prosjektet er avsluttet

(Navn, dato)

### **10. Approval from Sikt**

02.10.2023, 10:21

Sikt

Meldeskjema / Bærekraftig utvikling og literatur på barneskolen / Vurdering

## Vurdering av behandling av personopplysninger

Referansenummer 949351

Tittel

Vurderingstype Standard

Meldeskjema for behandling av personopplysninge

**Dato** 13.09.2023

1/2

Bærekraftig utvikling og literatur på barneskolen

#### Behandlingsansvarlig institusjon

Høgskolen i Innlandet / Fakultet for lærerutdanning og pedagogikk / Institutt for pedagogikk og samfunnsfag - Hamar

Prosjektansvarlig Marit Elise Lyngstad

Student Kristine Lundby

Prosjektperiode 01.10.2023 - 30.06.2024

Kategorier personopplysninger Alminnelige

Lovlig grunnlag

Samtykke (Personvernforordningen art. 6 nr. 1 bokstav a)

Behandlingen av personopplysningene er lovlig så fremt den gjennomføres som oppgitt i meldeskjemaet. Det lovlige grunnlaget gjelder til 30.06.2024.

#### <u>Meldeskjema </u>

#### Kommentar

#### OM VURDERINGEN

Sikt har en avtale med institusjonen du forsker eller studerer ved. Denne avtalen innebærer at vi skal gi deg råd slik at behandlingen av personopplysninger i prosjektet ditt er lovlig etter personvernregelverket. Vi har nå vurdert at du har lovlig grunnlag til å behandle personopplysningene.

#### FORELDRE SAMTYKKER FOR BARN

Prosjektet vil innhente samtykke fra foresatte til behandlingen av personopplysninger om elevene og de vil selv gi sin tilslutning til deltakelse.

DATABEHANDLER - NETTSKJEMA

Vi legger til grunn at behandlingen oppfyller kravene til bruk av databehandler, jf. personvernforordningen art. 28 og 29.

#### FØLG DIN INSTITUSJONS RETNINGSLINJER

Det er institusjonen du er ansatt/student ved som avgjør hvordan du må lagre og sikre data i ditt prosjekt og hvilke databehandlere du kan bruke. Husk å bruke leverandører som din institusjon har avtale med (f.eks. ved skylagring, nettspørreskjema, videosamtale el.).

Personverntjenester legger til grunn at behandlingen oppfyller kravene i personvernforordningen om riktighet (art. 5.1 d), integritet og konfidensialitet (art. 5.1. f) og sikkerhet (art. 32).

#### MELD VESENTLIGE ENDRINGER

Dersom det skjer vesentlige endringer i behandlingen av personopplysninger, kan det være nødvendig å melde dette til oss ved å oppdatere meldeskjemaet. Se våre nettsider om hvilke endringer du må melde: https://sikt.no/melde-endringar-i-meldeskjema

OPPFØLGING AV PROSJEKTET

Vi vil følge opp ved planlagt avslutning for å avklare om behandlingen av personopplysningene er avsluttet.

Lykke til med prosjektet!

https://meldeskjema.sikt.no/64e35568-f310-4613-aca9-82c22bb81693/vurdering

### 11. Document explaining CT&BT

### Critical Thinking and Book Talk

- Developing critical thinking through picturebooks
- Dialogic approach to critical literacy
- Critical thinking means thinking for yourself (Roche, 2015, p. 15)
- Exploring issues that prompt children to talk about social issues that have meaning for them

### CT&BT described by Roche (2022)

"The children sit in a circle, with the teacher sitting with them. The book is displayed slowly via the visualiser or using scans of each page. Children must have time to study the illustrations as the story is read aloud. They discuss the book, prompted by questions the book has raised for the children or by a question from the teacher/adult, who is a participant in the discussion. The children take turns democratically in sharing ideas, agreeing or disagreeing with each other and the teacher."

- The pupils must: look carefully at the pictures, listen carefully, individually thinking, respect others' thoughts, and do not interrupt others.
- "We get ideas while listening to others. If the talk goes to the right around the circle we will think different thoughts than if it goes to the left."
- When introducing the book the teacher can start by saying "The author and the illustrator have a reason for making this book. In this lesson, we will try to discover what they want to tell us"

### Sources

Roche, M. (2022). Climate change, picturebooks and primary school children. In A. M. Dolan (Ed.), *Teaching Climate Change in Primary Schools: An Interdisciplinary Approach* (pp. 89-98). Routledge. <u>https://www-taylorfrancis-com.ezproxy.inn.no/books/edit/10.4324/9781003112389/teaching-climate-change-primary-schools-anne-dolan</u>

Roche, M. (2015). Developing Children's Critical Thinking through Picturebooks: a guide for primary and early years students and teachers. Routledge.