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MASTER'S THESIS

There is not planet B: a content analysis of education for sustainable development in Norwegian primary school EFL textbooks

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I confirm that the work is self-prepared and that references/source references to all sources used in the work are provided, cf. Regulation relating to academic studies and examinations at the Western Norway University of Applied Sciences (HVL), § 12-1.

Abstract

Education is key in dealing with the environmental crisis we are facing on today's society. To help solve the problems the interdisciplinary topic education for sustainable development should be included in every school throughout the subject. The role of English lessons plays a part in preparing the student for communicating with others around the world and see the issues we face as a globe from different perspectives. This study addressed how education for sustainable development is presented in Norwegian primary school EFL textbooks. To help guide the research two research questions have been used: 1) To what extent do EFL textbooks for grades three to seven present environmental issues? and 2) Which environmental issues are presented in EFL textbooks for grades three to seven? To answer these questions the mixed method approach content analysis has been used. The study looked at both quantitative and qualitative data from fourteen EFL textbooks from the four main publishers in Norway. The results from the study indicate that the extent to which EFL textbooks focus on environmental issues vary greatly. The topics included in the textbooks also vary, but overall, the textbooks focus heavily on solutions, either by promoting recycling or by telling stories about young people that have taken initiative to help the environment. The textbooks also often suggest that the students take up the issues with their parents. Further, it should be noted that there was little focus on systemic issues. These findings are then discussed in light of previous research. This study concludes that the varied amounts and topics is a problem, and that further research is needed in this field.

Sammendrag

Utdanning er sentralt for arbeidet med miljøkrisen vi møter i dagens samfunn. For å forsøke å løse problemene bør det tverrfaglige temaet utdanning for bærekraftig utvikling være del av alle skolefag. Rollen til engelskfaget spiller en rolle i å forberede elevene på å kommunisere med andre rundt i verden og å kunne se utfordringene vi møter, fra ulike perspektiv. Denne studien undersøker hvordan utdanning for bærekraftig utvikling er presentert i engelske lærebøker brukt i den norske barneskolen. For å belyse problemstillingen har to forskningsspørsmål blitt brukt: 1) I hvilken grad blir miljøproblemer presentert i engelsk lærebøker brukt på tredje til syvende trinn? Og 2) Hvilke miljøproblemer blir presentert i engelske lærebøker brukt på tredje til syvende trinn? For å besvare disse spørsmålene har en metodetriangulering i form av en innholdsanalyse blitt utført. Studien har sett på kvantitative og kvalitative data fra fjorten engelske lærebøker fra de fire største forlagene i Norge. Resultatene fra studien indikerer at graden miljøproblemer er presentert i engelske lærebøker varierer veldig. Hvilke miljøproblemer som har blitt presentert varierer også, men lærebøkene fokuserer generelt mye på løsninger, enten gjennom fokus på resirkulering eller ved å fortelle om unge mennesker som har gjort noe bra for miljøet. Lærebøkene foreslår også ofte å ta opp miljøproblemer med foreldre. Videre var det lite fokus på systematiske problemer. Disse funnene blir diskutert i lys av tidligere forskning. Studien konkludere med at den store variasjonen i lærebøkene er et problem, og at videre forskning er nødvendig i dette feltet.

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English was always my favourite subject in school and is now my favourite subject to teach. During the last five years my love for the English subject has only increased and it is therefore no surprise I chose to write my Master's thesis in English didactics. The choice of topic was motivated through the changes in the world these last couple of years.

Environmental issues have become increasingly important, both for me personally and for society as a whole. English is a subject that helps students interact with people from other nations which is key to combat climate change. As an English teacher, I will work to help students prepare for the future, so that they can take on the challenges they will have to face.

The process of writing a master's thesis has been both challenging and rewarding. My five years at Western Norway University of Applied Sciences are now concluded with this thesis, which has mainly been produced by many hours in the study hall on campus. I could not have done this on my own, and therefore there are several people that need to be thanked. Firstly, my supervisor, Heidi Støa. Thank you for your insights on the topic, your thorough read throughs of my drafts, and your encouraging emails, I could not have done this without you.

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1. Introduction

The overall aim of education is to prepare the students for their future life, working and being active citizens in their community. In today's society the future feels very uncertain, with climate change constantly becoming a bigger issue for life on earth. While these changes have happened over quite some time and the discussion on education for sustainable development was introduced by UNESCO in 1972, there is still work to be done. Following the second instalment of the IPCC's Sixth Assessment Report they released a press statement saying. "Human-induced climate change is causing dangerous and widespread disruption in nature and affecting the lives of billions of people around the worlds, despite the efforts to reduce the risks" (IPCC, 2022). Further, the Chair of the IPCC, Hoesung Lee, stated that the IPCC report "emphasizes the urgency of immediate and more ambitious action to address climate risks. Half measures are no longer an option." Without overwhelming future generations, we need to teach them how to take care of the planet better than past generations have done. Irina Bokova, former director-general of UNESCO once said: "Education is the most powerful path to sustainability. Economic and technological solutions, political regulations or financial incentives are not enough. We need a fundamental change in the way we think and act" (Bokova, 2012). As seen from this statement, we need a holistic view on education for sustainable development, and the topic should be present in all subjects. As well as this being a global trend, the Norwegian government have taken the step to include sustainable development in the newest curriculum, LK20. Here there is an interdisciplinary topic that "shall help the pupils to understand basic dilemmas and developments in society, and how they can be dealt with. Sustainable 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" (Kunnskapsdepartementet, 2017, pp. 15). This means that education for sustainable development should be present in all subjects taught in Norwegian schools. Therefore, through this master thesis in English didactics I will explore how sustainable development is presented in Norwegian primary school English as a foreign language textbooks.

1.1 Relevance of the study

As we can see from the statement from the IPCC, while some measures have been taken to combat climate change, a lot still needs to be done. “Climate change is a global challenge that requires local solutions” (IPCC, 2022). The effects of climate change can be seen all over the globe, requiring everyone to take action. In doing so collaboration across countries is essential, and here the English subject plays a big part. By learning about sustainable development in English, looking at it from different perspectives the student are better equipped to take action locally, and in collaboration with people from other countries.

The importance of education in achieving sustainability has been stressed by the United Nations several times, and in 2015 they developed the Sustainable Development Goals, seventeen goals for “transforming our world” (UN, 2015, pp. 1). Several of these goals are relevant for this study, for instance goal 13 is to “take urgent action to combat climate change and its impacts” (UN, 2015, pp. 23). This goal is in line with the reports from the IPCC stating that while there have been some improvements, there is still work to be done. Further goal 4 focuses on education, and the target, 4.7, aims at “(...) [ensuring] that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture’s contribution to sustainable development” (UN, 2015, pp. 17). This goal is reflected in the Norwegian curriculum, LK20, where the importance of education for sustainable development is included as an interdisciplinary topic and knowledge and appreciation of different cultures is mentioned in the English subject curriculum.

LK20 was introduced in 2020 and is successor to the curriculum LK06. While LK20 has the interdisciplinary topic “sustainable development”, LK06 does not mention this in the core curriculum. There are, however, some competence aims in the English subject curricula that could be relevant when teaching about sustainable development, and that mainly focus on the need to be able to communicate with others around the world and how the ability to do

so is positive for “democratic development and co-citizenship” (Utdanningsdirektoratet, 2013, pp. 2). LK06 further states that English “will enable the pupils to communicate with others on personal, social, literary and interdisciplinary topics” (Utdanningsdirektoratet, 2013, pp. 2). As previously mentioned, education for sustainable development should be an interdisciplinary topic, and this competence aim would contribute to that. LK20, on the other hand, has the above-mentioned interdisciplinary topic, sustainable development, which is to be included in all subjects. In addition, this curriculum also has some competence aims in the English curriculum that could be included in the topic education for sustainable development. Firstly, there are central values in the English subject curriculum that are relevant for education for sustainable development, for example that “English shall help the pupils to develop and intercultural understanding of different ways of living, ways of thinking and communication patterns” (Kunnskapsdepartementet, 2017, pp. 2). Next, the curriculum also states that a goal of the English subject is to ensure that the students “become confident users of English so that they can use English to learn, communicate and connect with others” (Kunnskapsdepartementet, 2017, pp. 2). Both of these aspects are important when working with education for sustainable development, and in line with the goals presented by the UN. In addition to the central values, there are several competence aims that can ensure education for sustainable development, for example to “initiate, maintain and conclude conversations about one's own interests and current topics” (Kunnskapsdepartementet, 2017, pp. 7) and to “talk about some aspects of different ways of living, traditions and customs in the English-speaking world and in Norway” (Kunnskapsdepartementet, 2017, pp. 6). These, in addition to the interdisciplinary topic, “sustainable development” show that the Norwegian government have taken a step to work towards the sustainable development goals and that we as educators are obliged to work towards the goals in all subjects.

This study looks at whether and how the curriculum goals are presented in textbooks for the Norwegian primary school English classroom. Gilje (et.al., 2016, pp. 52) found that EFL teachers in grades 5-10 heavily rely on textbooks for their teaching, with 80 percent stating that they use textbooks as the primary teaching material. In addition, the textbooks examined here are all published by main publishers in Norway, so we can assume that they

are used in classrooms across the country. Therefore, looking at the content in textbooks is relevant as it gives an indication of what the students are taught in their English lessons.

While there has been little research on how environmental issues are presented in textbooks, there have been a handful of studies in the later years, although to the best of my knowledge none in Norway. A thorough exploration of these studies is done in the theory chapter, but there are some general trends found in these studies. Firstly, both Vásquez et.al (2021) and Jodoin and Singer (2019) found that the material presented in the textbooks was not in line with the UNs suggestions for education for sustainable development. Secondly, both Akcesme (2013) and Zahoor and Janjua (2020) found that the environmental problems that were presented in the textbooks were human focused, showing the non-vital needs humans have of nature. Thirdly, Mastínez-Medina and Arrebola (2019) found that the environmental problems that were presented focused on overuse of resources and pollution, and recycling. Lastly, Jimenez et.al (2017) amongst others state that there has already been a substantial progress in textbooks worldwide in including education for sustainable development. This study found that the Norwegian EFL textbooks for primary schools are a part of the progress Jimenez et.al (2017) mention, as there are substantial mentions of environmental issues, although the amount varies greatly, and the textbooks fit well into the sustainable development goals presented by the UN. There is, however, little focus on systemic issues, but rather a focus on measures the target audience, the students, can take themselves. With these findings this study is a first attempt to close the research gap on how environmental issues are presented in Norwegian EFL textbooks for the primary school classroom.

1.2 Research questions and aims of the study

The aim of this study is to find out how many texts on environmental issues can be found in Norwegian EFL textbooks for the primary classroom and to look at what topics those texts cover. This was done through a content analysis of fourteen textbooks all published in line with the new curriculum, LK20. The research questions that will help me guide the research are as follows:

1. To what extent do EFL textbooks for grades three to seven present environmental issues?
2. Which environmental issues are presented in EFL textbooks for grades three to seven?

I have chosen to use the term EFL, English as a foreign language, as this covers all students in the Norwegian classroom today. The Municipality of Oslo found that 40 percent of the student in their schools did not have Norwegian or Sami as their first language (in Flognfeldt & Lund, 2021, pp. 18). While this will not be true for the whole country, this find suggests that there is a significant percentage of students in Norwegian classroom whose first language will be something other than Norwegian and therefore English as a foreign language is the appropriate term to describe the English lessons.

The first research question is relevant to find out how much of the textbooks focus on environmental issues. As Gilje (et.al., 2016) mentioned, the textbooks are used heavily in the English classrooms in Norway, suggesting that the schools who use textbooks that cover environmental issues to a higher extent will naturally also teach their students more about environmental issues. The second research question is relevant to find out what topics within environmental issue the textbooks cover, and how they deal with those topics. Do the textbooks just present the topics, or do they also give suggestions for how to solve them, or even give examples of issues that already have been resolved? In addition, this research question is relevant to see how much the textbooks suggest that the student should do, hopefully without overwhelming them. The results from the study give an indication of whether education for sustainable development is included in the Norwegian EFL classrooms.

1.3 Structure of the study

In the next chapter, chapter 2, I will present the theoretical framework this study is based on. In this chapter I will present theories around sustainable development and education for sustainable development, both globally and in Norway, before moving onto how education for sustainable development is included in the English subject. Then, I will look at previous

research, before presenting some important terms that will help guide the discussion. In chapter 3, I will explain the method chosen for this study and the process of data collection. Next, in chapter 4, the analysis of the textbooks will be presented, and the analysis will then be discussed in light of the theory in chapter 5. Lastly, in chapter 6 the findings from the study will be summarised and suggestions for further research will be made.

2. Theory

In this chapter I will map out relevant theories for the topic of this thesis. First, I will introduce and explain what sustainable development is, before moving on to education in sustainable development. Then, I will look at how these theories have been developed in Norway, from the introduction of sustainable development in the 70s to the role it plays in the newest curriculum LK20. I will also look at previous research to illustrate what exists in the field, and I identify as the research gap that this study attempts to fill. Lastly, some important terms that will be used in the discussion section of the thesis will be discussed.

2.1 What is sustainable development?

It is important for this thesis to discuss and map out what sustainable development is. The premisses laid here is the basis for the further discussion in education for sustainable development, and what aspects of education for sustainable development were looked at in the analysis. The World Commission on Environment and Development first introduced the term “sustainable development” in 1987, when they defined the term as follows: “sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” (World Commission on Environment and Development, 1987). This definition is still relevant, and a slightly tweaked version is used in the new curriculum in Norway, LK20: “sustainable 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” (Kunnskapsdepartementet, 2020, pp. 15). This tweak focuses slightly more on the environment as it states “life on earth” than the original quote, making it more fitting for this thesis.

While Kunnskapsdepartementet kept the original definition of “sustainable development” in essence, the term is not uncomplicated and has been discussed at great lengths by scholars in the field (Sinnes, 2021, pp.30). Dobson argues that the problem with defining sustainable development is that each researcher creates their own definition, leading to over 300 definitions already in the late 90s (Dobson, 1996, pp. 402). Instead, Dobson suggests

creating typologies or frameworks on sustainable development, where he suggests one to be outlining “the causes of and solutions to environmental unsustainability and show in which domains these causes and solutions lie” (Dobson, 1996, pp. 420). The discussion about sustainable development is often about which needs or values to emphasise when defining the term. Should we, for instance, have a big focus on the impact air travel has on the environment, when half the class are children of immigrants and rely on planes to visit their families? Or focus on the large emissions that come from meat production, while knowing most of the students eat meat daily? These kinds of issues are relevant to consider when choosing which aspect to include in one's definition of sustainable development. While sustainability is often equated with ecology, that is only one part of the story. Ecology is defined as “the branch of biology that deals with the relationships between living organisms and their environment” (Oxford English Dictionary, 2022). However, as we can see through the Sustainable Development Goals (SDG) there are many more aspects to sustainability, where the SDGs cover environmental, economic, social and institutional goals (Block & Paredis, 2019, pp. 16). For example, goal 13 is to “take urgent action to combat climate change and its impacts” (United Nations, 2015, pp. 23) and clearly related to ecology, while goal 4 is to “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all” (United Nations, 2015, pp. 17) and goal 2 is to “end hunger, achieve food security and improved nutrition and promote sustainable agriculture” (United Nations, 2015, pp. 15). These goals all focus on different aspects of sustainability, with the main goal of ensuring a liveable planet also in the future. While some argue that the term sustainable development is too broad, and therefore can be used by people and organisations with vastly different ideologies, others argue that the term is still relevant today precisely because it is so broad, giving room for several interpretations and being applicable all over the world (Klein, 2020, pp. 17). In this thesis, the main focus will be on the ecology and environment aspect of sustainability. This increasingly present in the curricula, LK20, which for example states that the topic of sustainable development should include issues relating to the environment and climate (Kunnskapsdepartementet, 2017, pp. 15). In addition, the climate crisis and its attendant, ecological changes is an undeniable event that impacts people all over the world on an every-day basis.

2.2 What is education for sustainable development and why do we need it?

UNESCO (United Nations Educational Scientific and Cultural Organization) define “education for sustainable development” (ESD), in its broadest sense, as education for social transformation with the goal of creating more sustainable societies. They define eleven characteristics of education for sustainable development that can be implemented in diverse ways, so that “the unique environmental, social, and economic conditions of each locality are reflected in teaching and learning processes in local schools” (UNESCO, 2012, pp. 34). Further, UNESCO has also developed four areas of emphasis within education for sustainable development: “improving access and retention in quality basic education, reorienting existing educational programmes to address sustainability, increasing public understanding and awareness of sustainability and providing training to all sectors of the workforce” (UNESCO, 2012, pp. 33-34). The UN through UNESCO were the first to introduce education for sustainable development to the public, at a conference in Stockholm in 1972 (Straume, 2016, pp. 80). The UNs ideas have been further developed in the years since and are now a big part of education for sustainable development. Recently Sinnes (2021) wrote a book on education for sustainable development in which she states five central aspects of EDS. They are updated knowledge on the topic, interdisciplinary approaches to education, education linked to the children’s life, focus on developing non-theoretical competencies like creativity and critical thinking, and that the school provides an arena where one can learn to live in a sustainable way (Sinnes, 2021 pp. 55). By using the teachers’ knowledge on EDS and working with the topic in an interdisciplinary way we can achieve that the students relate to what they learn, which in turn they can use to develop the world in a more sustainable way. Further, creative and critical thinking can ensure that the students come up with new ideas that can help combat climate change. Research has shown that young adults lack knowledge on how they can influence sustainability other than doing personal changes, like walking instead of driving and eating less meat, which although important do not change society as a whole (Sinnes, 2021, pp. 45). To change this Sinnes (2021, pp. 45) proposes that school has to teach students on what they can do in order to influence the world in a more sustainable direction. They need to learn how politics, economy and society affect decisions made about sustainability, locally and globally (Sinnes, 2021, pp. 45). UNESCO (2020, pp. 28) also states that education for sustainable development should be given in a whole institution approach, which “call for learning environments where learners

learn what they live and live what they learn". The students need to see that the school not only teaches them about possible changes but take measures to ensure those changes happen in the school.

Educators have to be aware of the dilemmas that are involved in problems of sustainability in order to be able to discuss them with their students. Sustainability education should address the need for global cooperation and prepare students for rational and informed participation in deliberations about fair terms of cooperation. Education for sustainable development places great demands on educational institutions and educators, as "it requires competences to support students in developing their scientific thinking, critical thinking and good judgement, in addition to interdisciplinary knowledge of ecology, economics, and government" (van Dijk, 2017, pp. 1057). Education for sustainable development has also been criticised, as it is education "for" something, with researchers questioning two aspects. Firstly, educating for any particular political goal can be indoctrinating (Klein, 2020, pp. 19). To combat this, an open discussion about topics within sustainable development should be held in the classroom, so the students can make up their own minds on the topic, rather than taking what the teacher tells them as a fact (Klein, 2020, pp. 19-20). Secondly, critique has been raised at demanding future generations make up for past generations' faults (Klein, 2020, pp. 20). While this argument makes general sense, as it does feel unjust that future generations have to make up for past generations' fault, it is also the case that the world develops in such a way that we will have to. There is a long list of challenges humanity faces, one being "natural resource depletion" (United Nations, 2015, pp. 5), which show that today and future generations will have to take action and make up for past generations' faults. LK20 (Kunnskapsdepartementet, 2017, pp. 15) also places responsibility on the students stating that "the pupils shall develop competence which enables them to make responsible choices and act ethically and with environmental awareness". This is also found in the textbooks explored in this thesis, there is little direct mention of systemic issues, and rather a large focus on smaller scale actions the students can take themselves. Klein (2020, pp. 19-20) suggests that educators should focus on exploring different views on sustainability in the classroom and allowing students to explore

all possibilities rather than concluding on one specific answer, making education for sustainable development less indoctrinating and more open for discussion.

Van Poeck and Östman (2019, pp. 59) state that there are three overall purposes to education: qualification, socialisation and person-formation. Qualification “is about equipping students with knowledge, skills and understandings that prepare them for a (future) role or task (Håkansson & Östman, 2018, in Van Poeck & Östman, 2019, pp. 60). Socialisation is “teaching students certain values, attitudes, norms and worldviews so as to socialise them into prevailing standards of a particular social, cultural and political order or group” (Håkansson & Östman, 2018, in Van Poeck & Östman, 2019, pp. 61). Lastly, person-formation is “connected to the formation of the self: the cultivation of people’s personalities (...)” (Håkansson & Östman, 2018, in Van Poeck & Östman, 2019, pp. 62). Several of the learning objectives in the SDGs focus on these three purposes. Firstly, there are five learning objectives that aim to equip students to realising SDGs through teaching them about overcoming poverty, ending hunger and ensuring clean water amongst others (Van Poeck & Östman, 2019, pp. 61). Secondly, there are some learning objectives that aim at giving the students values like equality, justice and solidarity, attitudes like feeling responsibility and empathy and giving them a worldview aiming at and just and equal world (Van Poeck & Östman, 2019, pp. 62). Lastly, person-formation, which can take many forms, often includes the students forming an identity in relation to the material that was taught in school (Van Poeck & Östman, 2019, pp. 63). A concrete example of person-formation can be the learning objective “The learner is able to reflect on their own personal belonging to diverse groups (gender, social, economic, political, ethnical, national, ability, sexual orientation etc.) their access to justice and their share sense of humanity” (UNESCO, 2017, pp 42). These three purposes of education are all necessary to keep in mind when teaching education for sustainable development and will be addressed in the discussion part of this thesis, when I look at the content of the textbooks I have analysed.

In research literature this topic is mostly explored using the terms environmental citizenship or education for sustainable development. According to Dobson, environmental citizenship

is “pro-environmental behaviour driven by a belief in fairness of the distribution of environmental goods, in participation and in the co-creation of sustainability policy” (Dobson in Hadjichambis & Reis, 2020, pp. 1). Further, environmental citizenship is about citizens taking an active part in moving towards sustainability (Dobson in Hadjichambis & Reis, 2020, pp. 1).

2.3 Education for sustainable development in Norway

While there is a focus on education for sustainable development in the new curriculum, LK20, how much focus there has been on environmental issues in education in Norway has varied a lot. In Norway environmental focused education was first introduced in the 70s, when an interdisciplinary topic called “nature and environment protection” (own translation) was implemented in the curriculum (Kvamme & Sæther, 2019, pp. 27-28). The same topic was included in the teacher education in 1992, which the goal to provide teachers with knowledge on how to teach in order to create a Here the focus was on nature, with the curriculum stating that “school shall through education give the students an understanding for natures importance for our life (...) (Mønsterplanen for grunnskolen, 1974, pp. 277, own translation). The next curriculum also included the “nature and environment protection” topic, but the focus was slightly changed to also look at the relationship between humans and nature and more of a focus on teaching the students to take responsibility to not overuse resources (Mønsterplanen for grunnskolen, 1987, pp. 228;233;241).

The UN also introduced the topic in the 70s and were the first to use the term “education for sustainable development”. However, the first noticeable step towards a definition of sustainable development, and thus education for sustainable development, was in 1987 with the report *Our Common Future* written by the World Commission on Environment and Development. Many of the challenges presented in the report were discussed at the earth summit in Rio de Janeiro in 1992. The first big step towards education for sustainable development did not appear until ten years later, in 2002, when the UN declared the decade for education for sustainable development which was to last from 2005 till 2014, and which

Norway was a part of. Also in 2002, the Norwegian government implemented a new teacher education, in which they removed the "nature and environment protection" subject (Sætre, 2002, pp. 395). This shows that the decade for education for sustainable development did not leave a mark on Norwegian education, and no strategy for education for sustainable development was implemented in educational policies until now. With the developments of the recent years, with a big focus on the environment and how we need to take action in order to stop climate change, the topic is finally back in Norwegian education, and plays an overarching part in the new LK20. Education for sustainable development has not been a big research field in Norway, but this is also changing, with researchers from different fields within education focusing on education for sustainable development (Kvamme & Sæther, 2019, pp. 28).

2.4 Education for sustainable development in the English subject

When thinking about teaching sustainability the English subject does not necessarily come to mind at first (Dypedahl & Vold, 2019, pp. 117). In Norway education for sustainable development has mostly been taught in natural and social science, focusing on topics like nature, pollution and consumption in natural science, and discussing what humans can do to help maintain the future of the planet in social science (Dypedahl & Vold, 2019, pp. 117). This is a narrow way of looking at sustainability, leaving little room for interdisciplinary discussions, which again can make it difficult to see how education for sustainable development can be taught in other subjects, like English. Internationally, where the culture aspect of education for sustainable development has a bigger focus, this is viewed differently, (Dypedahl & Vold, 2019, pp. 118). After all, UNESCO's framework for education for sustainable development mentions three key areas, society, environment, and economy, which are tied together by culture. The culture aspect can either be viewed as fourth key area or as an overarching aspect connecting the three key areas. The culture aspects includes an understanding that a population's background and values impacts the process of creating and working together on targets that would improve the prospects for our future. UNESCO's framework states that knowing the value of diversity, respect and tolerance for differences are a prerequisite for working towards a more sustainable future. This aspect is mentioned in the English curriculum, for example in a year four competence aim: "talk

about some aspects of different ways of living, traditions and customs in the English-speaking world and in Norway” (Kunnskapsdepartementet, 2019, pp. 6), showing how the English subject can contribute to education for sustainable development. Further, English and other language subjects are interdisciplinary, as the students work with history, geography, literature, society, and politics as well as developing their language skills (Dypedahl & Vold, 2019, pp. 118-119).

Sinnes (2021, pp. 15) writes that education for sustainable development is a form of education that takes the problems today’s children will face seriously and aims at educating them to live sustainable lives in the future. The UN introduced 17 Sustainable Development Goals (commonly known as the Global Goals) in 2015, which are supposed to be a guidance to ensure a more sustainable world by 2030. Goal 4.7 is called “education for sustainable development and global citizenship” (UN, 2016, goal 4,7). This shows how important the focus on environmental awareness and sustainable development in the Norwegian curriculum is. Further, Sinnes (2021, pp. 55) points out that one of the main aspects of education for sustainable development is having an interdisciplinary approach to teaching. A similar approach can be found in the new curriculum in Norway, LK20. Here, one of the overarching topics, sustainable development states that “sustainable development as an interdisciplinary topic in school shall help the pupils to understand basic dilemmas and developments in society, and how they can be dealt with” (Utdanningsdirektoratet, 2020, pp. 14). Another part of the core curriculum is “respect for nature and environmental awareness” (Utdanningsdirektoratet, 2020, pp. 8). Given that the interdisciplinary topic, sustainable development, has been introduced in the new curriculum LK20, and that the English subject already incorporates other subjects, education for sustainable development should be a natural part of the English subject.

2.5 Important terms

2.5.1 Ecocriticism & ecolinguistics

Ecocriticism was first defined in the 90s by Glotfelty as “the study of the relationship between literature and the physical environment” (Glotfelty in Gaard, 2009, pp. 322).

Marland (2013, 846) states that “ecocriticism is an umbrella term for a range of critical approaches that explore the representation in literature of the relationship between the human and non-human, largely from the perspective of anxieties around humanity’s destructive impact on the biosphere”. Given that ecocriticism focuses on the relationship between literature and nature it is natural to keep in mind in a thesis like this where the focus is textbooks.

Ecocriticism is the study of the relationship between the physical environment and texts and focuses on how and to what extent or effect nature is conceptualized in, among others, textbooks (Akcesme, 2013). It hopes to draw a certain moral authority from science and is by many seen as something political (Garrard, 2007, pp. 360). Garrard (2012, pp. 5) states that the “widest definition of the subject of ecocriticism is the study of the relationship of the human and the non-human, throughout human cultural history and entailing critical analysis of the term ‘human’ itself”. According to Garrard (2012, pp. 13) ecocriticism has a “contribution to make to the diagnosis and resolution of ecological problems”. Ecocriticism makes it possible to analyse critically the tropes brought into play in environmental debate, and, more tentatively, to predict which will have a desired effect on a specific audience at a given historical juncture. (Garrard, 2012, pp. 16). Most of all, ecocriticism seeks to evaluate texts and ideas in terms of their coherence and usefulness as responses to environmental crisis. (Kerridge in Garrard, 2012, pp. 4). Seeing as ecocriticism focuses such on both the relation between human and non-human, and how this is portrayed in texts, these theories are relevant for this study, and especially when discussing the findings.

2.5.2 The Anthropocene vs. ecocentrism

Klein (2020, pp. 22-23) argues that we are in the midst of a change from the ecocentric to the Anthropocene period. Anthropism is a term describing a worldview in which the value of humans is greater than that of nature, while ecocentrism describes one in which humans are a part of nature (Klein, 2020, pp. 22). The tension between the two has never been greater as our whole existence is threatened due to the overuse of resources (Klein, 2020, pp. 23). During the last 70 years economic growth, increase in production of goods, and globalisation has increased tremendously, resulting in the tension between nature and humans (Klein, 2020, pp. 22-23). While the “Anthropocene period” is a term that is

relatively new, dating back to the 1970s, some scholars argue that the period dates back as to just after the last ice age, some 11 000 years ago (Rimmereide, 2018, pp. 209). Others argue that it started with the industrial revolution, saying that since then “the global effects of human activities have become clearly noticeable” (Rimmereide, 2018, pp. 209). One approach to the Anthropocene, is asking the question: “How do we respond to the changes we are facing and the challenges of climate change?” (Rimmereide, 2018, pp. 210). While anthropocentrism is a world view that centres humans, the term “the Anthropocene” is a suggestion for describing our current geological period, suggesting that humans are more important than nature in this period (Paulsen et.al., 2022, pp. 3). Quinn et.al. (2016, pp. 894) give an example on anthropocentric view of ecology, where they state that from this view “conserving (...) a coral reef is right for human-centred reasons, such as: enjoyment of tourists; sustaining local businesses; and protecting fish stocks for people’s food needs”. In contrast, ecocentrism is a perspective that “emphasises the intrinsic value of the interrelated ecological system of which humans are part” (Quinn et.al., 2016, pp. 895). For the example with the coral reef, an ecocentric view would say that “conserving a coral reef (...) is right because a coral reef has its own intrinsic value.” (Quinn et.al., 2016, pp. 895). For this study the difference between anthropocentric and ecocentric view on ecology is important when looking the textbooks to see which view the authors have focused on in their writing.

2.6 Education for sustainable development in textbooks

Mogensen and Schnack argue that education for sustainable development should be cross-curricular, problem-oriented while not losing interest in academic knowledge and should be focused on action (Mogensen & Schnack, 2021, pp. 60). Textbooks are arguably one of the most important parts of education, as mentioned in the introduction chapter, 70 percent of teacher in grades 5 till 10 state that they heavily rely on textbooks (Gilje et.al., 2016, pp. 52). They have an important role in teaching, both for student and teacher, as they have a legitimizing role as learning outcomes are often evaluated in relation to their content and as teachers sometimes believe that curriculum requirements are met by following textbooks (Biström and Lundström, 2021, pp. 280-281). As seen from (Gilje et.al., 2016) textbooks are

also used a lot in Norwegian schools, and therefore whether they fulfil the requirements stated by Morgensen and Schnack is important.

As research on education for sustainable development in EFL textbooks is limited with only a handful of studies conducted in later years, I also examine research exploring how education for sustainable development is presented in textbooks in other subjects in the theory section. As I have discussed, education for sustainable development, is by nature and interdisciplinary subject, so examining textbooks in mathematics or geography is also relevant. One example here is the study done by Vásquez et.al. (2021) looking at mathematics textbooks used in Chilean primary schools. The researchers argue that focusing on textbooks is important because they are widely used by teachers as a resource for teaching and learning processes, as well as being a part of the first action field in education for sustainable development (Vásquez et.al., 2021, pp. 2). They looked at four categories: “contexts for sustainability, levels of articulation, cognitive demand, and authenticity” (Vásquez et.al., 2021, pp. 7). Each category should ideally promote education for sustainable development. The category “contexts for sustainability” looked at whether tasks found in the textbooks fit into one three dimensions of action, economic, social and environmental, as presented by the UN (Vásquez et.al., 2021, pp. 7). The researchers' found that 52% of the analysed tasks had included sustainability contexts (Vásquez et.al., 2021, pp. 9). Next, the “levels of articulation” category explores to what extent the sustainability contexts are present in any given task, ranging from level 0, thus that the sustainability context is only initially present but not in the actual tasks, to level 3, where the sustainability context is the biggest part of the task, present from beginning to end (Vásquez, 2021, pp. 8). Vásquez et.al. (2021, pp. 12-13) found that there overall was a low level of articulation. The third category, “cognitive demand” looks at whether a task needs the students to use more elaborate knowledge than memorization, so if they can see connection between tasks and can reflect on what they have learned (Vásquez et.al., 2021, pp. 8). Here the researchers” found that 84% of the tasks only required memorization, thus that the tasks required a “direct application (...) of the knowledge previously exposed in the lesson” (Vásquez, 2021, pp. 13). Lastly, the category “authenticity” looked at how well the tasks related to the sustainable development goals and could be related to real situations and not fictious

stories (Vásquez, 2021, pp. 8). Vásquez et.al (2021, pp. 15) found that most of the tasks could not be called authentic as they did not relate to the sustainable development goals in a significant way. The authors argues that the tasks presented in the textbooks were not in line with the recommendations for education for sustainable development by UNESCO since they did not give the students a connection to the problems the international community has viewed as relevant and important (Vásquez et.al., 2021, pp. 17).

Martínez-Medina and Arrebola (2019) preformed a study looking at activities regarding sustainable development in Spanish social science textbooks. In Spain, sustainability is mainly addressed in the subjects, natural and social science, with a focus on topics like responsible consumption of energy, environmental problems, and the sustainable use of resources. Their method of analysis was based on Bloom's taxonomy and Costa's Levels of Questioning, resulting in six categories of analysis: "knowledge, understanding, application, analysis, evaluate and creation" (Martínez-Medina & Arrebola, 2019, pp. 4-5). In addition, they categorized the type of sustainability found in the textbooks in the categories: "human modification of the environment, energy, recycling, ethical consumption, environmental issues and general" (Martínez-Medina & Arrebola, 2019, pp. 6-7). For this thesis, the type of sustainability is most relevant, and here Martínez-Medina and Arrebola (2019, pp. 7:12) found that there was mostly a focus on environmental issues, like overuse of resources and pollution, and recycling. This is in line with what I have found in my study, which will be discussed further in the discussion chapter.

In their article, Jimenez et.al (2017, pp. 461) look at sustainable development in social science education across the globe. They do this by looking at textbooks used in secondary schools from a variety of countries, focusing on discussions of multiculturalism and social diversity, gender equality, human right, global citizenship and the environment, all topics mentioned by the Sustainable development goal 4.7 (Jimenez et.al, 2017, pp. 461).

Researchers have found that environmental and sustainable development themes have become increasingly prevalent in the second half of the 20th century, and that global issues were more likely to influence the textbooks than local issues (Bromley, Meyer & Ramirez in

Jimenez et.al, 2017, pp. 462). This claim is supported by Jimenez et.al (2017, pp. 463) who found that content on environmental protection/damage has increased from around 5% in the 1950s to 50% in the 00s. Global environmental issues is now around 30% whereas no textbook included content on this in the 1950s. Further, they found that the amount of discussions on environmental issues in textbooks has been stable in Europe and North America since the 1980s (Jimenez, 2017, pp. 463). Jimenez et.al. (2017, pp. 470) conclude that textbooks worldwide have had a substantial progress in incorporating education for sustainability content.

Akcesme (2013) conducted a study with the aim to look at what positions, attitudes, and relations of humankind within the natural world are presented in 103 texts from seven English language teaching (ELT) textbooks, used worldwide for adult learners. The textbooks used in this study were written between 1997 and 2012, which could be a limitation to the study as textbooks and curricula might have changed since then. However, I have still chosen to include them as they give another view of a clear trend found in similar studies. In their study, the author wanted to find out in what ways nature is represented and what the different representations of nature in texts reveal about their ideological and cultural implications. They looked at what and how issues about ecological issues and crises are brought up and dealt with (Akcesme, 2013, pp. 98). They found that “nature gains value only in relation to man and the interest in nature for its own sake is absent in the representations of nature in the coursebooks” (Akcesme, 2013, pp. 101). The representation of nature is mostly focused on how nature can be utilized for human needs and desires. The author concludes that “most of the representation of nature” in the textbooks used in this study have been designed around an anthropocentric approach, and nature is reduced to an object to be viewed (Akcesme, 2013, pp. 101-102). The textbooks hardly focus on nature and ecological systems for its own sake, but rather a great focus on human relationship to nature and topics that are a part of modern life. Akcesme critiques this and writes that “most of the texts examined in this study ignore or exclude the role of human agency that brings about ecological problems” (Akcesme, 2013, pp. 114).

Jodoin and Singer (2019, pp. 549) did a study on the role that environmental topics play in EFL textbooks, using a mixed-method approach. The researchers looked at four research questions:

1. How can image-text interplay be understood by applying a KPV model to environmental content in EFL textbooks?
2. Is imagery found alongside environmental content in EFL textbooks contributing to the construction of knowledge and the formation of beliefs and values about the environment?
3. Do images presented alongside environmental content in EFL textbooks link with ESD values and competencies including behavioural transformation?
4. How can ESD and the SDGs be integrated more broadly into EFL curricula?

(Jodoin & Singer, 2019, pp. 550)

Through analysing a series on EFL textbooks they found that there were four sub-topics most commonly found in education for sustainable development. Firstly, “use of resources” which relates to resources used by humans and is associated with human values and beliefs, was found in 39% of the textbooks (Jodoin & Singer, 2019, pp. 551;554). Secondly, “ecosystems and cycles”, which comes from the field of ecology, was found in 19% of the textbooks (Jodoin & Springer, 2019, pp. 551;554). Thirdly, “biodiversity” which contains concepts surrounding evolution, ecological management and species diversity, was found in 14% of the textbooks (Jodoin & Springer, 2019, pp. 551;554). Lastly, “pollution”, which includes the introduction of poisonous or harmful substances to the environment. This is also often related to human impact on the environment and associated with human values and beliefs and is included in 11% of the analysed material (Jodoin & Springer, 2019, pp. 551;554). The results from Jodoin and Singers’ study show that the image-text interplay found in the EFL textbooks often do little to improve values, attitudes and practises inherent in education for sustainable development (2019, pp. 563). Further, they found limited interconnectedness between topics, images and texts (Jodoin & Singer, 2019, pp. 563). As an example of the limited relations between texts and images Jodoin and Singer (2019, pp. 560) explain how in one of the textbooks they examined there is an illustration of a man

sitting on a globe next to the text “You shouldn’t buy that stuff”, they then argue that the illustration “appears decorative in purpose” (Jodoing & Singer, 2019, pp. 560). Lastly, and most importantly for this current study, they found a clear gap between the decisions textbooks publishers make and what the Sustainable Development Goals promote in their suggestions for education for sustainable development (Jodoing & Singer, 2019, pp. 563).

Zahoor and Janjua (2020) looked at English as a foreign language (EFL) textbooks used in Pakistan. The aim of their study was to analyse how an ecological worldview had been constructed by the language used in the EFL textbooks. They found that the textbooks they analysed were “lacking in ecopedagogical merit in that the representation of nature and the construction of the human-nature mostly resonates anthropocentric ideology, while ecojustice issue is considered sparingly” (Zahoor & Janjua, 2020, pp. 336). One example Zahoor and Janjua (2020, pp. 335) did find of ecojustice, was in a text that conveyed “that protecting the natural environment is a moral duty on the part of humans, for it is not only needed to ‘make life healthy and comfortable’ for ourselves, ‘but also for future generations’”. An anthropocentric worldview centres around the human, making humans supreme over all that is non-human (Zahoor & Janjua, 2020, pp. 322). The textbooks are anthropocentric because they portray nature being used by humans for non-vital needs, like aesthetic pleasure and monetary use (Zahoor & Janjua, 2020, pp. 328). They also found that the activities in the textbooks lacked practical activities which would help the children improve their skills and participation in the resolution of the environmental crisis. For example, the researchers found that the textbooks viewed nature “as a delight for the human senses and emotions” (Zahoor & Janjua, 2020, pp. 326).

Cristovao et.al (2022, pp. 76) looked at environmental discourse in English as a Foreign Language (EFL) textbooks used in Brazilian state schools. Their analysis showed that the textbooks examined do deal with relevant topics within education for sustainable development. However, the discourse found only appeared to show a shallow form of environmentalism, not addressing questions on cause and effect, nor that they made a real contribution to addressing environmental issues faced today (Cristovao et.al, 2022, pp. 88-

89). This is in line with the theory on education for sustainable development mentioned in the beginning of this chapter, which states that there is a lack of focus on systemic issues. The topics addressed could have the potential of creating an ecological awareness but would probably fail to encourage students to consider less tangible solutions than, for instance, recycling (Cristovao et.al, 2022, pp. 88-89). The textbooks often emphasise recycling, however Cristovao et.al (2022, pp. 90) argue that “Focusing on recycling is not a viable solution for environmental issues, since although it is important to recycle, other issues should also be approached, and textbooks should communicate the fact that recycling helps but is not enough to change the reality of the environmental crisis we face.” Cristovao et.al (2022, pp. 91) conclude by noting that the textbooks do provide some discussion of environmental issues. However, the EFL textbooks are not suitable for providing the educational experience necessary to give students enough knowledge on the topic to raise their awareness and motivate them to engage in supporting environmental sustainability in their everyday lives (Cristovao, 2022, pp. 91).

As we have seen from the research presented in this theory chapter, the field of education for sustainable development has been around since the 70s. We are now in “the Anthropocene” period, where humans are viewed as more valuable than nature. The tension between humans and nature has increased over this period, and the challenges we face as a consequence of the actions taken by humans in the Anthropocene now requires there to be a bigger focus on education for sustainable development. However, as previous research has shown there is a lack of environmental issues presented in textbooks, and the trend is fairly similar around the world. There is also a real lack into this research field, with little research done on the topic. In Norway there were no previous studies on environmental issues in textbooks, which shows that this thesis is relevant and will try to fill by doing a content analysis of EFL textbooks.

3. Method

In this chapter I will explain the research design and methodology. First, I will explain my methodological approach before moving on to data collection and analysis. Finally, I will look at the ethics of this thesis and discuss the validity of the study. The methodological approaches were chosen to answer the two research questions:

1. To what extent do EFL textbooks for grades three to seven present environmental issues?
2. Which environmental issues are presented in EFL textbooks for grades three to seven?

3.1 Methodological approach

For my thesis I have chosen to do mixed methods research, using both quantitative and qualitative approaches. As a quantitative approach I have counted how many pages each textbook uses to cover environmental issues, before then using the qualitative approach to look at what topics can be found in the textbooks and what contents are presented in each topic. Quantitative research most often starts with a specific hypothesis and has a numerical analysis of the data (Mackey & Gass, 2015, pp. 3). Qualitative research on the other hand, has data that cannot easily be quantified, and the analysis is interpretive (Mackey & Gass, 2015, pp. 3). While it often seems that quantitative and qualitative research are two very different things, this is not necessarily the case. Erickson & Roth (in Hays & Singh, 2012, pp. 13) state that quantitative and qualitative research are not opposites, as all research has both qualitative and quantitative elements, and we use similar processes to interpret the data. Mixed methods research is just that, mixing the two approaches to generate a more adequate and accurate understanding of the research project than would be possible using only one approach (Biesta, 2012, pp. 147). The fundamental principle of mixed methods research is to “combine methods in a way that achieves complementary strengths and non-overlapping weaknesses” (Punch, K.F. & Oancea, A., 2014, pp. 339). For this study a mixed methods approach makes sense, as the quantitative findings will highlight how much text there is on environmental issues in the textbooks I examine, while the qualitative aspect will give an overview of the content about environmental issues the textbooks contain.

Breivik & Mathé (2021, pp. 55) state there are five aspects to mixed method research, each serving different aim within a study. Firstly, there is: “complementarity”, which is using findings from one approach to strengthen and enhance the findings from a different approach. Secondly, there is: “initiation”, which is developing a study based on previous research, and using a new approach to look at past research from a different view. Thirdly there is triangulation which is using findings from one approach to confirm findings from another approach. Next, there is “development”, which is findings from one approach are used to develop a data collection tool. Lastly, there is “extension”, the research has several stages, where findings from one stage and approach influence the next stage and approach. For the research in this thesis an extension approach has been used, where the first stage of the research was quantitative, by looking at how many pages and units of analysis there were on education for sustainable development. Next, a qualitative analysis was done, looking at the content in the units of analysis. Other academics, such as Punch & Oancea (2014, pp. 345) call this type of research “explanatory design”. One use of explanatory research design is where the first phase quantitative data results guide the selection of samples used for the qualitative investigation (Punch & Oancea, 2014, pp. 346). While I have taken inspiration from an explanatory study design for this study, I collected the quantitative and qualitative data almost at the same time, doing an almost parallel study. Doing this can give a more holistic view of the findings (Breivik & Mathé, 2021, pp. 56). This study, for example, found that similar topics were discussed in the different textbooks, but with variations in the amount of text focused on the topics. Biesta (2012, pp. 149) states that there is no typical method for data collection in mixed method research, and that it all depends on what the aim of the study is. Therefore, having a clear purpose with the research and a clear image of what it can contribute to the research field is important when doing mixed method research, before formulating specific research questions (Biesta, 2012, pp. 149-150). For example, in this thesis the purpose of the study was to explore how Norwegian EFL textbooks or grades three to seven discuss environmental issues, looking at both the amount and the content, in order to fill a research gap on the topic.

3.2 Content analysis

In order to answer my research questions, I used the mixed method approach content analysis. Content analysis generally refers to a systematic attempt to identify the frequency with which certain words, functions or concepts occur within a text and, at a more challenging level, to explore the context in which these words are positioned for rhetorical or other effect (Hammond & Wellington, 2013, pp. 34). Content analysis is preceded by identifying a “text or texts for analysis, [determining] the unit of analysis, the categories used to label each unit and count the frequencies with which these categories occurred” (Hammond & Wellington, 2013, pp. 35).

Put simply, content analysis means the process of summarizing and reporting written data, focusing on the main contents and messages of said data (Cohen et.al, 2017, pp. 674). The written data, or texts, are any text intended to be read, interpreted, and understood by other readers than the analyst (Krippendorp, in Cohen et.al, 2017, pp. 674). Content analysis has several positive sides to it, for example that it is a systematic procedure, which makes it easily verifiable through re-analysis and replication as the material is permanent (Cohen et.al, 2017, pp. 674). In addition, content analysis focuses on the meaning of a text in the context of that text (Cohen et.al., 2017, pp. 674). These factors are both important for my study, seeing as it is done in a relatively new research field. Replication is important so other researchers can also help fill the research gap. A replication can happen through another researcher looking at EFL textbooks aimed at primary school students and analysing them through a content analysis, using the same categories as will be presented later in this study. That content analysis focuses on meaning in context is essential for my study, as this is an essential part of the qualitative analysis. The texts that have been analysed are all analysed in the context of sustainable development and environmental issues, which should also be the context of a potential replica study.

Content analysis is a long process and involves coding, categorizing, comparing and concluding. (Cohen et. Al, 2017, pp. 675). In their book, Cohen et.al (2017, pp. 675) present a six-stage process of content analysis, which has been the basis for the analysis done in this

study. However, not all steps have been followed, as they were not all beneficial for the purpose of this study. The authors describe the following steps. First, the researcher has to choose an appropriate sample of data. In my project convenience sampling was used: I used the materials that were available at the time of the study (Cohen et.al, 2017, pp. 218). The textbooks used in this study were the ones available to me through the on-campus library and the ones publishers were willing to send. An attempt was made to find a representative sample, but due to not all new textbooks, in line with the new curriculum, being published at the time of the study, some compromises had to be made. Therefore, there is some variety to how many textbooks have been analysed from each publisher, and from each grade. However, it should be noted that the textbooks that have been analysed are from the four main publishers in Norway, which implies that they are widely used in Norwegian classrooms. The sample is also sufficient to learn about the research questions in this thesis. As these are new textbooks, all published between 2020 and 2022, they are good for saying something about what textbooks authors think about environmental issues and sustainable development. However, we cannot know how much these new textbooks are used in classrooms yet, as can assume that most schools are still deciding on which textbooks to buy. Secondly, Cohen et.al. writes that the researcher needs to break down the text into smaller components, the units of analysis (Cohen et.al, 2017, pp. 676-677). In this study, the units of analysis were defined as text or images having one or more mentions of environmental issues. It should be noted that there has been a higher emphasis on text than on images, because there is more text than images and because this is a small-scale study with limited resources to perform the analysis. The number of units of analysis could therefore vary from a paragraph to several chapters in a given work. For instance, one textbook had two pages on environmental issues, while another had sixty-two pages on environmental issues, including a several pages long story. Thus, the first textbook had a small unit of analysis, and the latter had several big units of analysis.

The third step of the process of content analysis is developing appropriate categories for analysing the data. In this study the categories were developed through inductive category-development. This is done through reading the material several times, looking for common themes, generalising topics, grouping together units of analysis and eventually defining the

different categories that emerged from the process (Andersson & Bakken, 2021, pp. 313). For example, while developing the categories, I found text on recycling, reusing and reducing in several of the textbooks, which lead to the category called “the three Rs”. One major benefit of using inductive category-development is that the process can easily be used on types of texts that have not been researched a much before (Andersson-Bakken & Bakken, 2021, pp. 313). As we have seen from the theory chapter, research on environmental issues in EFL textbooks is a relatively small field, with few studies globally and none in Norway, making inductive category development a reasonable way to go about developing categories in this study. Next, the researcher has to match the units of analysis to the different categories (Cohen et.al, 2017, pp. 678). This was done by reading and rereading the material in the units of analysis extensively, before finding the category in which the information belongs. As I note above, the unit of analysis varied from a paragraph to a couple of pages to a whole chapter, and one unit of analysis could sometimes be put into several categories. For example, the rap song *Recycle rap* in *Explore 6* (Edwards et.al., 2021, pp. 162-163) fits both into the “lyrics” category and the “the three Rs” category. The reader should note that I have chosen to only put the different texts into one category, so that the *Recycle rap* (Edwards et.al., 2021, pp. 162-163) is discussed mainly in the “lyrics” category in the analysis. This was done to create more clarity in the text, as the texts that are included in the “lyrics” category all can have been put in several of the other categories and each of them covers several topics within environmental issues. The fifth step is counting the occurrence of the units, or what I call the “categories”, in this study. The frequency of a category can give an indication of the significance of the different categories (Cohen et.al, 2017, pp. 679). For this study the frequency of the categories indicates which aspects of environmental issues the textbooks authors presumably deem as most important, and thus is significant to discuss.

Finally, I carried out the actual analysis of the textbooks’ content. Here I looked at how the categories linked together, and what units of analysis fit into each category. By comparing and contrasting the different units of analysis in the different categories I analysed what environmental topics could be found in the textbooks and in which way they were represented. In the analysis, I found several similarities between the units, for example two

of the textbooks have chosen to focus on the orangutans. This indicates that the authors focus on the same aspects of sustainability, regardless of which publisher they write for, as I show in my discussion section. In the analysis I also focused on which topics were not found in the textbooks, as not saying something may be as important as saying something (Cohen et.al, 2017, pp. 679). One example, that I view as quite important, as I will argue for in the discussion section, is that there is no mention of the oil industry in any of the textbooks I have examined. This is an interesting find as the oil industry is a big part of Norwegian industries and economics, as well as everyday life, and at the same time a major driver of climate change. Again, I return to this absence of the oil industry in my discussion chapter. In this part of the methods chapter content analysis has been explained, I now move on to discussing the collection of data for this study.

3.3 Data collection

The data used for this study, were textbooks intended for use in Norwegian primary school, grades three through seven. I examined textbooks from the four main publishers, namely Gyldendal, Aschehough, Cappelen Damm and Fagbokforlaget. I initially attempted to find out which textbooks were the most sold, but since none of the publishers have published those numbers publicly, they could therefore not be found. A reason for these not number not being published could be that the textbooks are all new, as they were written to be in line with the new curriculum, LK20, which was implemented in 2020. Next, I emailed the publishers and asked if I could get books to use in the analysis. Only one publisher agreed to send me two books, while the others gave me access to their e-book's versions of the textbooks for a limited time. Because of the limited access to these e-books, I made the choice to only use books I could access physical copies of, as these would be available to me throughout the process of writing my thesis. Most of the material used in this study was found in the library of Western Norway University of Applied Sciences, which stocks most of the commonly used textbooks in Norwegian primary schools. One publisher also sent me two textbooks to use for the study. As previously mentioned, this study used a convenience sampling approach and I looked at the material available to me. The inclusion criteria for the material were that they needed to be English textbooks meant to be used in Norwegian primary schools. They also needed to be published at the earliest in 2020, in order to be in

line with the new curriculum, LK20. This is because, as stated in the introduction, LK20 has a stronger focus on sustainable development than previous curricula and this focus is the basis for this thesis. As I chose a convenience sampling, there has not been an analysis of a set number of books per publisher or grade, but rather the books that had been published in line with the new curriculum. Textbooks for some of the grades have not yet been rewritten and published in line with the new curriculum and have therefore not been analysed. However, the textbooks that have been analysed are all commonly used textbooks and therefore form a good basis for the analysis.

Textbooks from grade one and two have not been included in this study as there is very limited time set aside for English lessons in these lower grades. A total of 140 hours are set aside for English lessons in the first four years, which amounts to just under one sixty-minute lesson per week (Utdanningsdirektoratet, 2020, pp. 9). Because of this I found it unlikely that there would be any mention of environmental issue themes for the lower grades. This was supported through my preliminary findings, where I discovered that there were no mentions of education for sustainable development in the first and second grade textbooks I looked at in the preliminary analysis. The textbooks I looked at were *Quest 1* (Lien et.al. 2020), *Engelsk 1+2* (Johansen & Vestgård, 2019), *Explore 1* (Edwards et.al., 2020) and *Explore 2* (Edwards et.al., 2020). Because there was no mention of environmental issues in these textbooks, I have chosen not to include them in the analysis. The textbooks that fulfilled the inclusion criteria and therefore have been analysed are *Link 3* (Mezzetti et.al, 2020), *Link 4* (Mezzetti et.al, 2020) and *Link 5* (Mezzetti et.al, 2020) published by Fagbokforlaget, *Explore 5* (Edwards et.al, 2020) and *Explore 6* (Edwards et.al, 2020) published by Gyldendal, *Quest 3* (Lien et.al, 2020), *Quest 4* (Lien et.al., 2022), *Quest 5* (Bade et.al, 2020) and *Quest 7* (Bade et.al., 2022) by Aschehough and *Engelsk 3* (Haegi et.al, 2020), *Engelsk 4* (Haegi et.al, 2021), *Engelsk 5* (Solberg & Unnerud, 2020), *Engelsk 6* (Solberg & Unnerud, 2020) and *Engelsk 7* (Haegi et.al, 2021) by Cappelen Damm. Although I do not have access to sales numbers, I have seen several of these books in use in EFL classrooms, during teaching practice in 2021 and in my work as a substitute teacher in 2021 and 2022.

3.4 Limitations, validity and reliability

An obvious limitation for this study is its size. Due to the time and physical resources available, all textbooks in Norwegian EFL classrooms have not been analysed, although the vast majority certainly are included. Another limitation could be that I have chosen to not look at the online materials available to use in classrooms, which might have included more text on environmental issues. This means the study does not give a full overview of education for sustainable development topics in all Norwegian EFL textbooks for primary schools, and the results will be generalized based on the textbooks available. Hedges (2012, pp. 28) states that one aspect of data analysis validity, or lack thereof, is unreliable data, including too little time spent collecting data and too few instances of data. This is, as mentioned, an aspect of this study which could decrease the validity of the study. However, the general validity, thus whether the study measures what it claims to measure (Punch & Oancea, 2014, pp. 305) is overall good. This is because I intended to look at what aspects of environmental issues were present in Norwegian EFL textbooks and have done so in a fairly large sample of textbooks. Further, Smith (2012, in Krumsvik, 2019, pp. 191) states that validity “involves making judgement about how well the research has been carried out, and whether the findings can be regarded as trustworthy and useful”. Stemler (2001, pp. 5) mentions that validation takes form of triangulation, meaning that using several methods to find the findings gives credibility to the study. This study uses a mixed methods approach, thus using several methods, which according to Stemler (2001, pp. 5) gives credibility to the study. Given that I have used several methods, as well as used all textbooks available to me I would argue that the validity of this study is present as the textbooks give a representative sampling of the way Norwegian EFL textbooks deal with sustainability.

Reliability, according to Punch and Oancea (2014, pp. 305) deals with the consistency of the measuring instruments of a study. This includes both consistency over time and consistency within a category. The classification into categories might be inconsistent over time, due to human error and ambiguity amongst others (Cohen et.al, 2017, pp. 684). For example, words can be ambiguous and what I define as environmental issues might be different from how another researcher would define the term. Further, Cohen et.al (2017, pp. 684) mention other aspects that might affect the reliability of a study: first of all, whether a text

is written with the intention of being researched. It is easy to argue that textbooks aimed at elementary schools were not written with the intend of being researched. However, as this researcher is a teacher education student, I would argue that I could be viewed as an intended audience for textbooks. What is true, however, as Cohen et.al (2017, pp. 684) also note is that the documents, in this case textbooks, might be limited, partial or non-neutral because they were intended for a different purpose than that of research. These textbooks were primarily written with the intent of being used in classrooms as teaching material, with the intended audience being children and their primary school teachers. This could have affected the choices of topics within environmental issues covered in the textbooks. Another aspect of reliability that has an impact on this study, is that the categories may reflect the researcher's agenda more than the producers of the text may have intended (Cohen et.al, 2017, pp. 684). It should be fairly obvious that as I, the researcher in this study, is of the opinion that education for sustainable development and a stronger focus on environmental problems is important. I have used my own experiences and my own ideas about the topic both when conducting the study and developing the categories of analysis. It could therefore be argued that there is a bias inherent the categories that reflect the fact that I think the topic is very important. Even though there is a bias, this can also be seen as a positive for the study, as my personal focus on environmental issues might have helped me finding categories that other researchers less focused on environmental issues and education for sustainable development, might not have had.

4. Analysis

The previous chapters in this thesis have accounted for relevant theories on the topic, and described the methods used in the investigation. This chapter will present the findings found through the analysis of the textbooks, in order to answer the two research questions: 1) To what extent do EFL textbooks for grades three to seven present environmental issues? and 2) Which environmental issues are presented in EFL textbooks for grades three to seven? For this study I chose to work with 14 textbooks for grades three through seven. As mentioned in the methods chapter the books I chose to use are as follows: *Link 3* (Mezzetti et.al, 2020), *Link 4* (Mezzetti et.al, 2020) and *Link 5* (Mezzetti et.al, 2020) published by Fagbokforlaget, *Explore 5* (Edwards et.al, 2020) and *Explore 6* (Edwards et.al, 2020)

published by Gyldendal, *Quest 3* (Lien et.al, 2020), *Quest 4* (Lien et.al., 2022), *Quest 5* (Bade et.al, 2020) and *Quest 7* (Bade et.al., 2022) by Aschehough and *Engelsk 3* (Haegi et.al, 2020), *Engelsk 4* (Haegi et.al, 2021), *Engelsk 5* (Solberg & Unnerud, 2020), *Engelsk 6* (Solberg & Unnerud, 2020) and *Engelsk 7* (Haegi et.al, 2021) by Cappelen Damm. Through the analysis chapter I will first look at how much of the textbooks focus on environmental issues, before moving on to looking at what environmental issues are presented. At the end of the chapter there will be a summary of the main findings.

Book	Number of pages with text on environmental issues.	Total number of pages in book	Percentage of book used on environmental issues	Categories in book
<i>Quest 3</i>	0	93	-	
<i>Link 3</i>	0	83	-	
<i>Engelsk 3</i>	0	167	-	
<i>Quest 4</i>	2	105	1.9%	Inspiring stories Animals
<i>Link 4</i>	21	132	15.9%	Food The three Rs Animals
<i>Engelsk 4</i>	4	111	3.6%	Inspiring stories
<i>Link 5</i>	7	220	3.2%	Food Transportation Animals
<i>Explore 5</i>	2	187	1.1%	Food
<i>Quest 5</i>	16	182	8.8%	The three Rs Lyrics
<i>Engelsk 5</i>	24	195	12.3%	Food The three Rs Animals
<i>Explore 6</i>	15	207	7.3%	The three Rs Transportation Animals Inspiring stories Lyrics
<i>Engelsk 6</i>	62	208	29.8%	Weather

				The three Rs Animals
<i>Engelsk 7</i>	47	232	20.3%	Inspiring stories Lyrics
<i>Quest 7</i>	28	268	10.5%	Inspiring stories Animals Lyrics Water The three Rs

Table 1 The extent of environmental issues presented in the EFL textbooks examined

Table 1 shows the number of pages and percentage of the book the focuses on environmental issues. One interesting find, that can be seen in table 1 is that there are no texts on environmental issues in the third-grade books, regardless of publisher. The third-grade books will therefore not be included in the further analysis, but this finding will be picked up again in the discussion chapter.

As we can see from table 1 the *Link* textbooks, published by Fagbokforlaget differ greatly in focus on environmental issues. Fagbokforlaget (n.d) states that the *Link* textbook series aims at giving students the tools to have a curious look at the world around them. They focus on activities, interdisciplinary topics and intercultural competence in order to give students different perspectives on the world around them (Fagbokforlaget, n.d). For the analysis, I looked at two books from the *Link* textbooks series, *Link 4* (Mezzetti et.al., 2020) and *Link 5* (Mezzetti et.al., 2020). *Link 4* (Mezzetti et.al., 2020) was published in 2020, and is aimed at fourth grade students, aged nine to ten. *Link 5* (Mezzetti et.al., 2020), published in 2021, is aimed at fifth grade students, aged ten to eleven. *Link 5* (Mezzetti et.al., 2020) has nine chapters, “On the go”, “Sports”, “Health and resilience”, “Harvesting”, “Maps and directions”, “Behind the monsters”, “International food”, “Bugs and insects” and “Health”. Environmental issues can be found in the chapters, “On the go!”, “Harvesting”, “Maps and directions” and “Bugs and insects”. In total there 3.2% of the book focuses on environmental issues. *Link 4* (Mezzetti et.al., 2020) on the other hand uses 15.9% of the book on environmental issues. In *Link 4* (Mezzetti et.al., 2020) there are eight chapters, “The British Isles”, “Vikings”, “All Hallows’ Eve”, “Free time!”, “The environment”, “When I grow

up”, “Feelings” and “Earn, save, spend”. Environmental issues can be found in the chapter “The environment”. That the authors of *Link 4*, Mezzetti et.al. (2020), chose to focus a whole chapter on environmental issues is interesting, and this find will be picked up again in the discussion chapter.

Gyldendal has a textbooks series for the English subject called *Explore*. The publishers point out three main areas which are focused on throughout the series (Gyldendal, n.d). Firstly, they want the students to have an exploratory and critical approach to learning English, the books have interdisciplinary topics, and all books are differentiated to accommodate all learners. *Explore 5* (Edwards et.al, 2020) was published in 2020 and is aimed at the fifth-grade students, aged ten to eleven. *Explore 5* (Edwards et.al, 2020) has seven chapters, “My school”, “My family”, “World mysteries”, “In the shop”, “My spare time”, “Extreme records” and “About the UK”. As we can see from table one, 1.1% of *Explore 5* (Edwards et.al, 2020) is used on environmental issues, a two-page spread can be found in the chapter “In the shop”. *Explore 6* (Edwards et.al, 2020) was published in 2021, is aimed at sixth grade students, aged eleven to twelve. There are also seven chapters in *Explore 6* (Edwards et.al, 2020), “Man’s best friend”, “Trolls and heroes”, “Journals, blogs and diaries”, “Cars and other vehicles”, “Starstruck”, “Saving our planet” and “About the USA”. Table 1 shows that 7.3% of the *Explore 6* (Edwards et.al, 2020) has been used for environmental issues, and we can find these texts in the chapters “Cars and other vehicles” and “Saving our planet”. Like we saw in *Link 4* (Mezzetti et.al., 2020), there is also a whole chapter dedicated to environmental issues in *Explore 6* (Edwards et.al, 2020), and again this will be picked up in the discussion chapter.

As we can see in table 1 the amount of texts on environmental issues in the Aschehoughs textbooks series, *Quest*, varies some. The *Quest* series aims at accommodating for students to explore the English language through creative approaches, with a focus on student participation and discussions in the classroom (Aschehough, n.d). In this thesis *Quest 4* (Lien et.al, 2022), *Quest 5* (Bade et.al., 2020) and *Quest 7* (Bade et.al., 2022) have been used. *Quest 4* (Lien et.al) was published in 2022 and is aimed at fourth grade students, aged nine

to ten. The textbook has six chapters, "A Day in My Life", "It is Getting Dark", "Big, Bigger, Biggest", "Let's Read!", "Spring time" and "At the Zoo". Environmental issues can be found in 1.9% of the textbook, in the chapters "Big, Bigger, Biggest" and "At the Zoo". *Quest 5* (Bade et.al) was published in 2020 and is aimed at fifth grade students, aged ten to eleven. This textbook has seven chapters, "It's My Life", "School and spare time", "How the Body Works", "Let's Go to the UK!", "Let's Read!", "The Three Rs" and "Hidden Treasures". Texts on environmental issues can be found in 8.8% of the textbooks, in the chapter "The Three Rs", so like in *Link 4* (Mezzetti et.al., 2020) and *Explore 6* (Edwards et.al., 2020) there is a whole chapter dedicated to environmental issues, and here specifically recycling, reusing and reducing. Lastly, *Quest 7* (Bade et.al) was published in 2022, and is aimed at seventh grade students, aged twelve to thirteen. There are six chapters in *Quest 7*, "What Matters to Me?", "English-speaking Countries", "Game on!", "Let's Read!", "Tell Us About Tellus" and "Mysteries". 10.5% of *Quest 7* (Bade et.al., 2022) has been used for texts on environmental issues, in the chapters "What Matters to Me?", "English-speaking Countries" and "Tell Us About Tellus". The last chapter, "Tell Us About Tellus" is wholly dedicated to environmental issues, like we saw in *Link 4* (Mezzetti et.l.al., 2020) and *Explore 6* (Edwards et.al, 2020).

Cappelen Damm has a textbook series called *Engelsk* for primary school. The textbook series has three core elements that are covered in each textbook, communication, language learning and culture and literature (Cappelen Damm, n.d). These books focus a lot on reading, with each chapter in the five to seventh grade books having a "read and enjoy" part in each book. In this thesis *Engelsk 4* (Haegi, et.al., 2021), *Engelsk 5* (Solberg & Unnerud, 2020), *Engelsk 6* (Solberg & Unnerud, 2020) and *Engelsk 7* (Haegi et.al., 2021) have been analysed. *Engelsk 4* (Haegi et.al.) was published in 2021 and is aimed at fourth grade students aged nine to ten. This textbook has eight chapters, "NUMBERS AND GECKOS", "SCHOOL LIFE", "CELEBRATIONS", "MYSELF, FAMILIES AND FRIENDS", "VISIT ME", "MAKING PLANS", "ANIMALS" and "HELLO SUMMER!". In *Engelsk 4* (Haegi et.al., 2021) 3.6% of the textbook focuses on environmental issues, in the chapters "SCHOOL LIFE" and "MAKING PLANS". *Engelsk 5* (Solberg & Unnerud) was published in 2020 and is aimed at fifth grade students, aged ten to eleven. This textbook has four chapters, "Good talking to you", "Take and interest", "Travel through old and new" and "Respect our Earth". 12.3% of *Engelsk 5*

(Solberg & Unnerud, 2020) contains text about environmental issues, in the chapter “Respect our Earth”. Like we have seen in several of the other textbooks, the authors of *Engelsk 5* (Solberg & Unnerud, 2020) have also chosen to focus one whole chapter on environmental issues. *Engelsk 6* (Solberg & Unnerud) was published in 2020 aimed at sixth grade students aged eleven to twelve. *Engelsk 6* (Solberg & Unnerud, 2020) has also has four chapters, “Friendship”, “Stay together”, “Crossing borders” and “Down to Earth”. In this textbook 29.8% of the text is used on environmental issues, in the chapters, “Stay together”, “Crossing borders” and “Down to Earth”. *Engelsk 7* (Haei et.al.) was published in 2021, aimed at seventh grade students aged twelve to thirteen. *Engelsk 7* (Haegi et.al., 2021) has four chapters, “Serious fun”, “Rise up”, “Beyond words” and “Plant a seed”. 20.3% of the textbook has been used on environmental issues, in the chapter “Plant a seed”. This is again a textbook with a whole chapter dedicated to environmental issues, which is recurring in several of the textbooks, and this is a find I will come back to in the discussions chapter.

4.1 Categories

While analysing the environmental texts in the textbooks, the findings have been organised into different categories or themes, as I discussed in the methods section, namely “inspiring stories”, “transportation”, “animals and nature”, “the three Rs”, “food”, “weather”, “lyrics” and “water”. I have defined “inspiring stories” as stories about one or more people taking initiative to help the environment. The texts in this category often overlap with other categories but have been put here because they are mainly about the people presenting their ideas to help the environment. The “transportation” category has been defined as any text that has something to do with a means of transportation, from walking on foot to plane travel and discussing whether they impact climate change. I defined the “animals and nature” category as any type of text discussing animals in light of climate change, for example by discussing how their habitats have changed. This category also includes any discussion of nature, as nature is the habitat of animals and thus affects them. While some could argue that the texts on nature and not animals should have their own category, due to the interconnectedness of ecological systems I have chosen to put it into one category. “The three Rs” category includes all text using the terms reduce, reuse and recycle as a way to reach environmental goals. The “food” category I have defined as all text on how one can

grow more sustainable food, food waste and leftover food. I define the “weather” category as all content about extreme weather or changes in weather that has occurred as results of climate change. The “lyrics” category I have defined as all text in the form of a song or poem that focuses on an aspect of environmental issues. Because the texts included in this category often could fit into several of the other categories, I have chosen to define them as “lyrics”. In addition, I found it interesting that song and poems were used a fair bit to convey messages about environmental issues, and therefore chose to focus on it. Lastly, the “water” category includes all text that concerns how water is affected by environmental issues, for example how the freshwater reserves are dwindling.

4.1.1 Inspiring stories

Textbook	Number of pages on environmental issues	Number of pages containing “inspiring stories”	Percentage containing “inspiring stories”
<i>Link 4</i>	21	2	9.5%
<i>Quest 4</i>	2	1	50%
<i>Engelsk 4</i>	4	1	25%
<i>Link 5</i>	7	0	-
<i>Explore 5</i>	2	0	-
<i>Quest 5</i>	16	6	37.5%
<i>Engelsk 5</i>	24	0	-
<i>Explore 6</i>	15	3	20%
<i>Engelsk 6</i>	62	0	-
<i>Quest 7</i>	18	5	28%
<i>Engelsk 7</i>	47	30	64%

Table 2 The extent of the category “Inspiring stories” in textbooks examined

As we can see from table 2 the category “inspiring stories” is present in seven of the analysed textbooks. “Inspiring stories” are texts about one or more people taking initiative to help the environment and can include both real and fictional people. The amount of the textbook that can be put into the category “inspiring story” varies from 9.5% in *Link 4* (Mezzetti et.al., 2020) to 64% in *Engelsk 7* (Haegi et.al., 2021). The type of “inspiring story” also varies, although some of the same stories can be found in several textbooks. I will now present the “inspiring stories” from the seven textbooks.

Link 4 has two pages that fit into the category “inspiring stories”, a two-page spread with an interview like fictional text where Johnathan interviews a specialist on the environment. The interview states that the environment is “(...) everything around us and affects all of our lives” (Mezzetti et.al, 2020, pp. 66-67). The story goes on to explain what can harm the environment and what we can do to help. Lastly, the story explains what climate change is saying “It means that our planet is changing due to changes in the climate”. In *Quest 4*, the one text part that can be included in “inspiring stories” is in the segment “When I Grow up” on page 48, where two cartoon characters say that when they grow up, they want to “Take care of the animals and stop ocean pollution” (Lien et.al., 2022, pp. 48) and “Save the bees and the rainforest” (Lien et.al., 2022, pp. 48). *Engelsk 4* also has one text that can be included in the “inspiring stories” category, namely a text about The Green School in Bali. This school teaches their students about “ways to protect the environment for the future” (Haegi et.al, 2021, pp. 44).

In *Quest 5* (Bade et.al, 2020) there are three texts that fit into the category “inspiring stories”, each two pages long. Firstly, there is a fictional interview-style story about a school that “have an Environment Week with a popular fashion show” (Bade et.al, 2020, pp. 140). The goal of the fashion show, and presumably the text, is to “remind the pupils that we should take care of our clothes” (Bade et.al, 2020, pp. 141). Next, we find a two-page text about “Beach Cleanup Day” (Bade et.al., 2020, pp. 144), which describes how plastic can end up on beaches and in the ocean. Next the books describes a beach clean-up day held in Norway every year, presumably encouraging the reader to participate (Bade et.al, 2020, pp. 144). Lastly, there is an interview style story based on an actual interview with a real boy, Dylan D’Haeze (Bade et.al., 2020, pp. 146-147). The text describes how Dylan made documentary films about plastic pollution, and how the films got international recognition, leading to him winning two awards. Dylan concludes the interview by saying “I really hope people refuse plastic when they are in the store, or if they can’t refuse it, they do the three Rs.” (Bade et.al, 2020, pp. 147). As we can see from this example

Explore 6 (Edwards et.al., 2021) has three texts within the category “inspiring stories”, each about real-life young people taking action to help the planet. First, there is a story about two brothers, Daniel and William Clarke, who work on saving orangutans, by raising money and writing books. They “want to inspire children all over the worlds to make a difference” (Edwards et.al., 2021, pp. 159). Later in the textbook, we can read about another boy, Erek Hansen, who recycles old jeans to use as home insulation, having recycled 33.889 pairs of jeans into insulation by January 2020 (Edwards et.al., 2021, pp. 160). Lastly, *Explore 6* contains a story about the Wijsen sisters, who worked and succeeded to ban plastic bags, plastic straws and polystyrene in Bali through their initiative *Bye Bye Plastic Bags* (Edwards et.al., 2021, pp. 160).

The story about the Wijsen sisters can also be found in *Engelsk 7* (Haegi et.al., 2021, pp. 172-175), where it is described in greater detail. This part of the book also has a quote from the sisters, presumably there to encourage the reader to take action:

“To all kids of this beautiful but challenging world: go for it! Make that difference. We’re not telling you it’s going to be easy. We’re telling you it’s going to be worth it. Us kids may only be 25 percent of the world’s population, but we are 100 percent of the future.”

(Haegi et.al., 2021, pp. 175)

The texts on environmental issues are mostly within the category of “inspiring stories” in *Engelsk 7* (Haegi et.al., 2021), 64 percent of the environmental issues texts are within this category. Apart from the Wijsen sisters, there is also the story about Lesein Mutunkei, who started Trees4Goals, an initiative to help with deforestation in Kenya (Haegi et.al., 2021, pp. 168-171). There are also a few pages on Amelia Telford, an Aboriginal who works who works with young Aboriginals to keep the tradition of taking care of the coastline going (Haegi et.al., 2021, pp. 168-181). She wants to do this by helping young Aboriginals to become climate leaders and take actions in their own communities (Haegi et.al., 2021, pp. 179). Amelia says that her motivation is based on tradition: “For generations, thousands and thousands of years, we’ve looked after this land sustainably.” (Haegi et.al, 2021, pp. 181). Next, in *Engelsk 7*, there is a story about Cass, a spoken word poet, writer and artist, who

amongst other topics, writes about climate change (Haegi et.al., 2021, pp. 197). They have advice for other youngsters: “Keep doing what you’re doing. Keep believing that you change something. If more people believe they can make a change, more things will change” (Haegi et.al., 2021, pp. 207). The last text that falls under the category “inspiring stories” is an excerpt from the book *Little People, BIG DREAMS: David Attenborough* by Maria Isabel Sanchez Vegara (2020), telling the story about David Attenborough and how he followed his dream to work with nature and how he encourages people to take care of it (Haegi et.al., 2021, pp. 212-215).

In *Quest 7* (Bade et.al., 2022) 28 percent of the text on environmental issues fits within the category “inspirational stories”. Firstly, on the introduction page to the chapter “What Matters to Me?” we can see a girl holding up a sign saying: “There is no planet B” (Bade et.al., 2022, pp. 13). Next, in the chapter “English-speaking Countries” there is a paragraph about the Black Mambas, an all-female anti-poaching group who help save African animals, in the Kruger national park in South Africa. They also have a children's group, Bush Babies, one member, Nomsa states “We learn about the wild animals that live around us. We also learn that we have to take care of these animals for future generations.” (Bade et.al., 2022, pp. 85). In the main chapter that focuses on environmental issues, “Tell Us About Tellus”, there is a two-page spread on a Kids Take Action magazine, which states: “At kids take action magazine we like to share kids’ ideas about saving the planet.” (Bade et.al., 2022, pp. 176). Lastly, in *Quest 7*, there is a two-page spread on Earth Day, which is celebrated on 22 April each year, with ten tips for how one can celebrate (Bade et.al., 2022, pp. 184-185).

As we can see from the summary of the different texts included in the “inspiring stories” category, many of them focus on children who have taken action to help fight climate change. Presumably, the publishers have chosen to write about children around the same age as the target students, assuming that the students will be inspired by the stories and want to take action themselves. The story about David Attenborough is naturally not about a child, but it does mention his childhood, and we can assume that the textbook writers thought a famous person who almost everyone knows can be inspiring. Lastly, some of the

inspiring stories are about events, like the fashion show, Earth Day in *Quest 7* (Bade et.al., 2022) and Beach Cleanup Day in *Quest 5* (Bade et.al., 2020). Here, we can assume that the authors wanted to inspire the students by telling them about something tangible that they can take part in. Both Earth Day and Beach Cleanup Day are already established days so easy to participate in without a lot of effort in preparation from the students. The Beach Cleanup Day is also specific to Norway so there is a chance that the students have already heard about it. The rest of the “inspiring stories” are either international, like Earth Day or specific to one country. The majority of the stories are from English speaking countries, like USA, Australia and South Africa, with Indonesia (Bali) being the only story where the country does not have English as an official language. There are the most “inspiring stories” in *Engelsk 7* (Haegi et.al., 2021), which focuses heavily on this category to convey the authors’ take on environmental issues.

4.1.2 Animals and nature

Textbook	Number of pages on environmental issues	Number of pages containing “Animals and nature”	Percentage containing “Animals and nature”
<i>Link 4</i>	21	2	-
<i>Quest 4</i>	2	1	50%
<i>Engelsk 4</i>	4	1	25%
<i>Link 5</i>	7	4	57%
<i>Explore 5</i>	2	0	-
<i>Quest 5</i>	16	0	-
<i>Engelsk 5</i>	24	10	42%
<i>Explore 6</i>	15	2	13.3%
<i>Engelsk 6</i>	62	12	19.4%
<i>Quest 7</i>	18	3	16.6%
<i>Engelsk 7</i>	47	0	-

Table 3 The extent of the category “animals and nature” in the textbooks examined

As we can see from table 3, text that fit into the “animals and nature” category are present in eight of the textbooks. These are texts that either focus on animals and how climate change affects them, or on nature, which is the habitat for animals, in general. The amount of “animals and nature” text varies from one page in both *Quest 4* (Lien et.al., 2022) and *Engelsk 4* (Haegi et.al, 2021), to twelve pages in *Engelsk 6* (Solberg & Unnerud, 2020). The texts focus on different aspects of the animal kingdom and nature, but a general theme is

solutions, how we can help save the animals. The texts in this category will now be presented.

In *Link 4* (Mezzetti et.al., 2020), there is one text that fits into the category “animals and nature”. This two-page spread features information on four sea animals, the orca, the Hermit crab, the shark and corals. Each of the sea animals are accompanied by a factual box which tells the reader about the animals' species, size, habitat, diet, weakness, strength and whether it is endangered. For example, the fact box for the coral says

“Weakness: Die when the waters get too polluted or warm. (...)”

Endangered: Yes. Warmer oceans make the coral bleach, which means they die.”

(Mezzetti, 2020, pp. 83)

The text does not ask the reader to reflect on what can be done to help these animals and save them from extinction. In many of the other textbooks, however, this is a central idea in the texts that fit into the “animals and nature” category.

For example, in *Quest 4* there is a page that fits into the category “animals and nature” which focuses on how zoos “look after animals that are endangered, to stop them from becoming extinct” (Lien et.al., 2022, pp. 101). Further, *Quest 4* gives examples of animals some zoos breed before putting them back into the wild, mentioning tiger, Asian elephant, mountain gorilla, leatherback turtle and orangutan (Lien et.al., 2022, pp. 101). The orangutan is also mentioned in *Explore 6* (Edwards et.al., 2021, pp. 152-153) where there is a two-page factual text about them. The text explains where and how they live, what they look like and what they eat. *Explore 6* concludes with a paragraph on how the orangutans are endangered saying “their habitat, the rainforest, is being cut down. (...) Luckily, many people are now helping to protect these wonderful animals” (Edwards et.al., 2021, pp. 153). The focus on the orangutan is mostly on how it is endangered, but also on solutions on how to help them, mostly ones that are already in place, but the texts also asks the reader to reflect on how to save these animals.

As stated in the beginning of this chapter, the “animals and nature” category also includes mentions of nature, as nature is the habitat of animals. In *Engelsk 4* (Haegi et.al., 2021, pp. 115) this is the case, where the text included in the “animals and nature” category discusses how trees are important by stating that “Trees helps to keep out air clean and our world healthy” (Haegi et.al., 2021, pp. 115). This is the only mention of this specific nature focus in the textbooks, and the only text in *Engelsk 4* (Haegi et.al., 2021) that fits into the “animals and nature” category.

As we can see from table 3 *Link 5* (Mezzetti et.al., 2021) is another textbook that has a lot of text falling into the “animals and nature” category, with 57 percent of the text on environmental issues being in this category. While other textbooks have mentioned sea animals and orangutans, *Link 5* focuses on the importance of insects for the environment (Mezzetti et.al., 2021, pp. 150-151;166-167). Firstly, there is a factual text about bees, explaining how bees are crucial for growing food and how they are now at risk because of climate change and that they therefore no longer can help grow produce (Mezzetti et.al., 2021, pp. 150). The text even states that “About one-third of the food we eat is the result of a honeybee’s pollination” (Mezzetti et.al., 2021, pp. 151). *Link 5* encourages the reader to take action to help the bees by suggesting to “start a bee garden, provide trees for bees, create a bee bath, or buy “bee-friendly” flowers” (Mezzetti et.al. 2021, pp.150). Presumably, to enhance the emphasis on how bees and insects are important, there is also a story about how Mao Zedong tried to eliminate pests in order to grow more food, but how his plan failed and because the eco-system was destroyed people just ended up hungrier than before (Mezzetti et.al., 2021, pp. 166-167). The text concludes by stating “We all depend on each other on this beautiful planet called Earth” (Mezzetti et.al., 2021, pp. 167). This concluding sentence in *Link 5* (Mezzetti et.al., 2021) highlights the rest of the texts in the “animals and nature” category from this book, on how even the insects are important for environmental issues.

In *Engelsk 5* (Solberg & Unnerud, 2020), the importance of insects is also mentioned in one of the texts from this textbook that fits into the “animals and nature” category. Here, there

is an interview style story called *Busy as a bee*. The story highlights the importance of insects, by stating “without the insects, no crop” (Solberg & Unnerud, 2020, pp. 163). The other body of text in *Engelsk 5* that fits into the “animals” category are three factual texts on wild animals, the hedgehog, the fox and the badger (Solberg & Unnerud, 2020, pp. 150-151; 152-153; 156-157). The text about hedgehogs gives the reader information about how they look, their food and their habitat, and concludes by asking the reader “There are fewer and fewer hedgehogs. How can we help them to survive?” (Solberg & Unnerud, 2020, pp. 151). The focus on human actions that negatively affects the life and habitat of animals can also be found in the text about the fox, “many foxes are hit by cars, starve to death or die from disease” (Solberg & Unnerud, 2020, pp. 152). The same focus can be found in the questions after the text on the badger “what dangers can a badger meet?” (Solberg & Unnerud, 2020, pp. 157). Like in the two previous texts, we can assume that the authors are looking for an answer where the reader reflects on how humans can be the biggest danger to the badger, even though it is not mentioned in the text explicitly,

Engelsk 6 (Solberg & Unnerud, 2020, pp. 146-157) has a subchapter, *Animals in the wild*, dedicated to animals and how climate change has impacted their lives, making these twelve pages very fitting for the “animals and nature” category. First, there are a couple of pages on the grizzly bear, explaining their habitat, diet and what their life is like. Then there is a paragraph on traits and dangers, stating that “many bears die because of human activity, such as hunting or accidents with cars and trains” (Solberg & Unnerud, 2020, pp. 146-149). On the bottom of the last page there are some questions, one being “what can we do to help the bears survive?” (Solberg & Unnerud, 2020, pp. 149), presumably wanting the reader to reflect on how humans affect wild animals and come up with ideas how we humans can help. Next, there are some pages on the bison. Again, they explain the looks of a bison, their diet and habitat, how they are a symbol for the Native Americans, and then also dangers and threats (Solberg & Unnerud, 2020, pp. 150-153). Here the authors explain how when European settlers moved to America, they brought diseases with them which killed many bison, concluding by saying “today there are not many herds of wild bison left (...) In national parks, the animals are protected, and hunting them is against the law” (Solberg & Unnerud, 2020, pp. 153). Here there is not a focus on asking the reader to come

up with solutions for saving the animal, but rather stating that measures to save them have already been taken. The last animal story in *Engelsk 6* is about the bald eagle, again describing their looks, habitat, how they got their name, that the bald eagle mates for life and their hunting habits (Solberg & Unnerud, 2020, pp. 154.156). Lastly, it is described how the bald eagle was endangered in the 1960s because of insecticides used in farming. The authors then explain how the insecticides were banned as an action to save the bald eagle and how they now are no longer endangered (Solberg & Unnerud, 2020, pp. 157).

Quest 7 (Bade et.al., 2022) has only a few pages that fit into the “animals and nature” category. These pages are on the rainforest, what it is, why it is important and how climate change is affecting the rainforest. The text states that rainforests are important because they “help regulate Earth’s climate” (Bade et.al., 2022, pp. 180) by removing carbon dioxide and releasing oxygen. Further they state that “the plants of the rainforests protect against land erosion, flooding and pollution” (Bade et.al., 2022, pp. 181) The text gives several reasons for the rainforest disappearing, for example that “rainforests disappear when people build roads through them” (Bade et.al., 2022, pp. 182). The text also gives solutions for how we can protect the rainforests, namely that readers can “tell you parents and friends why the rainforests are important, use mostly recycled paper, do not buy furniture made of wood from the rainforests, support Kids Saving the Rainforest organisation (...)” (Bade et.al., 2022, pp. 182).

As we can see from the texts that have been included in the “animals and nature” category, this category focuses heavily on endangered animals, from sea animals to wild land animals to insects like bees. Both the dangers of plastic to sea animals and how bees and insects are important have been discussed a lot in mainstream media the last couple of years which could be a reason for the textbook writers to include this in their books. The importance of insects has for example been discussed in media, explaining how and why they are going extinct and what we can do to help (Rapp, 2015; Vignæs, 2020; Humberst, 2021; Hjertholm, 2021), much in line with what was found in these textbooks. Another finding is that the “animals” texts focus a lot on solutions, either by giving the reader ideas for what they

can do to help or asking the reader to come up with their own ideas. *Engelsk 6* (Solberg & Unnerud, 2020) was the textbook that focused on “animals” texts the most, using this as its primary way to communicate environmental issues.

4.1.3 Transportation

Textbook	Number of pages on environmental issues	Number of pages containing “Transportation”	Percentage containing “Transportation”
<i>Link 4</i>	21	0	-
<i>Quest 4</i>	2	0	-
<i>Engelsk 4</i>	4	0	-
<i>Link 5</i>	7	2	28%
<i>Explore 5</i>	2	0	-
<i>Quest 5</i>	16	0	-
<i>Engelsk 5</i>	24	0	-
<i>Explore 6</i>	15	3	20%
<i>Engelsk 6</i>	62	0	-
<i>Quest 7</i>	18	0	-
<i>Engelsk 7</i>	47	0	-

Table 4 The extent of the category “transportation” in the textbooks examined

As we can see from table 4, *Explore 6* (Edwards et.al., 2021) and *Link 5* (Mezzetti et.al., 2021) are the only two textbooks that discuss environmental issues in light of transportation. *Explore 6* (Edwards et.al., 2021) mentions using trains, stating that “trains are more eco-friendly than cars and aeroplanes” (Edwards et.al., 2021, pp. 93). Next, *Explore 6* (Edwards et.al., 2021) has a paragraph on a car called the Greenbird, which uses wind power (Edwards et al, 2021, pp. 103). This is a vehicle which would most likely not have a real-life effect, but it is an interesting idea, both from an environmentalist point of view, and probably also for the age group. Lastly, *Explore 6* ha a page called “what about the future?”, where they state, “most people agree that it is important to choose eco-friendly vehicles like electric cars to avoid climate changes” (Edwards et.al., 2021, pp. 105). *Link 5* has a two-page spread on sustainable ways of travelling, mentioning biking, walking, taking the bus, train or driving an electric car (Mezzetti et.al., 2021, pp. 12-13). What mainly differentiates the two books on this aspect is that *Link 5* also focuses on the health benefits of for instance biking, using that as another incentive to travel less by car (Mezzetti et.al., 2021, pp. 12-13). It is interesting that there is so little text on “transportation”, which, while the target audience cannot drive themselves, presumably is a big part of their everyday life.

4.1.4 The three R's

Textbook	Number of pages on environmental issues	Number of pages containing "The three R's"	Percentage containing "The three R's"
<i>Link 4</i>	21	10	47.6%
<i>Quest 4</i>	2	0	-
<i>Engelsk 4</i>	4	2	50%
<i>Link 5</i>	7	0	-
<i>Explore 5</i>	2	0	-
<i>Quest 5</i>	16	7	43%
<i>Engelsk 5</i>	24	11	45.8%
<i>Explore 6</i>	15	1	6.7%
<i>Engelsk 6</i>	62	3	4.8%
<i>Quest 7</i>	18	0	-
<i>Engelsk 7</i>	47	2	4%

Table 5 The extent of the category "the three Rs" in the textbooks examined

The category "the three Rs" is like "inspiring stories" and "animals and nature" a big one. This category includes all text that focuses on reducing, reusing and recycling. As we can see from table 5, seven of the books have text that can be included in this category, with both *Quest 5* (Bade et.al., 2020) and *Engelsk 5* (Solberg & Unnerud, 2020) using a big chunk of their environmental issues texts on this topic, while some textbooks choose not to include it at all. This is arguably the most tangible topic in the textbooks, as all of the students have experience with at least the recycling part of "the three Rs". I will now explore the different texts that fit into the "the three Rs" category. It should be noted that some of the texts included in the "inspiring stories" category could also have been included in this category.

Like we can see from table 5, almost 50 percent of the environmental issues texts in *Link 4* (Mezzetti et.al., 2020) fit into the category "the three Rs". On the introduction page to the chapter *The environment*, we can see children picking up rubbish and sorting them into different rubbish bins (Mezzetti et.al, 2020, pp. 64-65). Next, there is a two-page spread on plastic in the ocean, describing how "light plastic items (...) often fly away in the wind. (...) The sad fact is that the plastic often ends up in the ocean" (Mezzetti et.al, 2020, p. 68-69). This text also asks the reader to reflect on what can happen when the plastic ends up in the ocean, and what we can do to prevent this from happening (Mezzetti et.al., 2020, pp. 69).

On the next page, there is a story about “the history of the drinking straw” describing how it developed from being made out of paper, to being made of plastic to now being made out of other materials again, like pasta and glass (Mezzetti et.al, 2020, pp. 70). The next text that fits into the “the three Rs” category is a blog post stating that “Rubbish is bad for the planet”, before it goes on to describe how glass and metal is bad for nature, and how they can easily hurt animals (Mezzetti et.al., 2020, pp. 74). The blog post is followed up by an overview of how long different things take to break down in nature, mentioning how a plastic bottle takes 450 years to break down (Mezzetti et.al., 2020, pp. 75). Generally, *Link 4* focuses heavily on plastic and how this material is very harmful for the environment.

Another textbook that focuses on plastic is *Engelsk 4* (Haegi et.al., 2021, pp. 102-103). This textbook has a two-page spread with the headline “A sea of plastic”, showing a photo of rubbish in water with some claims about plastic next to the picture that presumably aim at making the students reflect on plastic (Haegi et.al, 2021, pp. 102-103). In *Quest 5* (Bade et.al., 2020), 45 percent of the textbooks’ environmental content fits into “the three Rs” category. The authors start their environmental chapter with an illustration of rubbish and reflection questions, similar to the introduction page in *Link 4* (Mezzetti et.al. 2020). In *Quest 5* (Bade et.al., 2020, pp. 132-133) we can see an illustration of seven people, one person is littering, and five are cleaning up rubbish and putting it into bins and the last person sitting a tree looking curious. This is a collage, an illustration made up from other illustrations and pictures, which does not give a clear indication as to where in the world this is supposed to be. As already mentioned, there is a big focus on “the three Rs” in this textbook, and next there is an overview of which types of rubbish most homes produce, stating that “21% food, 2% clothes, 11% plastic, 9% glass, 17% other waste, 32% paper and card and 8% metal can be found “in an ordinary house” (Bade et.al., 2020, pp. 135). Next, there is a two-page spread on tips to reduce, reuse and recycle. One example for reducing is to “be creative: make gifts and cards for friends and family” (Bade et.al. 2020, pp. 136). For this tip there is a follow up two-page spread on how the reader can use scraps to make a card (Bade et.al., 2020, pp. 138-139). An example for a reusing tip is to “reuse shopping bags” (Bade et.al., 2020, pp. 136). Lastly, an example for a tip on recycling is to not throw

away batteries (Bade et.al., 2020, pp. 137). Note that the text does not have a suggestion for what the reader should do with used up batteries instead.

Engelsk 5 also focuses on “the three Rs”, firstly on the introductory two-page spread to the chapter *Respect our earth* where we can see some people carrying rubbish to the recycling station (Solberg & Unnerud, 2020, pp. 144-145). The main focus of the text that fits into “the three Rs” category, however, is on reusing clothes and how and what to recycle (Solberg & Unnerud, 2020, pp. 166-171; 172-175). First, there is a six-page story on redesigning, which states that redesigning is good for the planet because “to produce clothes, factories use a lot of water and energy. The more new clothes we buy, the more the factories will make, and the more energy they will use” (Solberg & Unnerud, 2020, pp. 171). There is a story about a school that has a day where students are to wear second hand or redesigned clothes, and *Engelsk 5* also gives ideas on how the reader can redesign clothes (Solberg & Unnerud, 2020, pp. 166-170). The latter part of text in *Engelsk 5* that fits into “the three Rs” category deals with recycling. Here, the textbook discusses how materials like paper, metal, glass and plastic can be recycled, and thereby, presumably, encourages the reader to take the time to recycle those materials (Solberg & Unnerud, 2020, pp. 172-175).

Explore 6 (Edwards et.al., 2021) has one page that I have chosen to include in the category “the three Rs”. It should be noted that the textbook also has a song called “recycle rap”, which has been put into the “lyric” category. As mentioned in the introduction of this chapter, the category “lyric” was created because there are relatively many texts in the form of poems or songs, which is an interesting choice the authors made, and this decision will be picked up in the discussion chapter. The page that has been included in the “the three Rs” category gives some examples for “things we can do to help protect our planet” (Edwards et.al., 2021, pp. 161). The authors give examples for how we can reduce, reuse and recycle, and also suggest buying green products saying “Ask your parents to buy products made in a way that is safe for the environment, for wildlife and for people, whenever possible. Avoid buying products that have palm oil in them, for example”

(Edwards, et.al., 2021, pp. 161). On the bottom of the page there are some questions that ask the reader to reflect on what they can do to help with reducing, reusing and recycling.

While *Engelsk 6* (Solberg & Unnerud, 2020) is the textbook with the most text on environmental issues, only 4.8 percent fits into the category of "the three Rs". This percentage consists of three pages used on a story called *Find use for used clothes* (Solberg & Unnerud, 2020, pp. 88-90). In this story we meet families on a street who each year gather clothes they no longer need and donate them. It is described as a "win-win situation (...) And not to forget, reusing the clothes is eco-friendly" (Solberg & Unnerud, 2020, pp. 90).

While there is a relatively big amount of text covering all of "the three Rs" in the textbooks, most of it is focused on recycling, with an emphasis on plastic, and how important it is to recycle plastic and avoid that it ends up in nature. This can suggest that the authors of the textbooks think of plastic as a big issue, which is natural as it has been a big focus in the media in Norway the past couple of years and is generally a well-known issue. One example of this is the "Sotra Whale", a cuvier's beaked whale, that was found on the island Sotra outside of Bergen with a lot of plastic in its stomach, and the find was then discussed in all the main newsagents in Norway (Johansen; Karlsen; Ertesvåg; Nilsen, 2017). Out of the three Rs the authors mention "reducing" the least, which could suggest that they view this as less important, or less tangible for the readers, this thought will be discussed in the discussion chapter. *Quest 5* (Bade et.al., 2020) and *Engelsk 5* (Solberg & Unnerud, 2020) both use almost half of their environmental issues text on topics related to "the three Rs", so we can assume that their authors view this as important issues.

4.1.5 Food

Textbook	Number of pages on environmental issues	Number of pages containing "Food"	Percentage containing "Food"
<i>Link 4</i>	21	4	19%
<i>Quest 4</i>	2	0	-
<i>Engelsk 4</i>	4	0	-
<i>Link 5</i>	7	1	14%

<i>Explore 5</i>	2	2	100%
<i>Quest 5</i>	16	0	-
<i>Engelsk 5</i>	24	2	8.33%
<i>Explore 6</i>	15	0	-
<i>Engelsk 6</i>	62	0	-
<i>Quest 7</i>	18	0	-
<i>Engelsk 7</i>	47	0	-

Table 6 The extent of the category “food” in the textbooks examined

As we can see from table 6, *Explore 5* has focused all its text about environmental issues on food. First, there is a page with facts about food, with one such fact being “Did you know that cows and sheep fart and burp so much that it is a problem? The gas they produce is really bad for the environment” (Edwards et.al., 2020, pp. 104). On the next page Edwards et.al. (2020, pp. 105) give suggestions for how children can help look after the planet. One suggestion is “talk to your parents about having a meat-free day once a week” (Edwards et.al., 2020, pp. 105). On the bottom of the page, there are a couple of reflection questions to encourage the reader to reflect more on food waste.

In *Link 4* there are two texts that fit into the “food” category, amounting to 19 percent of the texts on environmental issues in this book. First, there is a comic book style story which looks at what is needed to make a loaf of bread and how it is wasteful both to the environment and the people making the bread to not eat it, but instead throw it away (Mezzetti et.al., 2020, pp. 78-79). Due to the questions at the bottom of the pages, we can assume that the authors want the reader to reflect on food waste and ways to reduce food waste (Mezzetti et.al., 2020, pp. 78-79). On the next two pages there is a recipe for leftover quesadilla, presumably as an encouragement and an idea to use leftover food (Mezzetti et.al, 2020, pp. 80-81).

In *Link 5*, there is one page that fits into the category “food”. On page 68, reasons for eating local and in season food are mentioned, with one being that it is better for the environment (Mezzetti, 2021, pp. 68). Mezzetti et al state that “Eating seasonally means less transportation, less refrigeration, fewer greenhouse gases, and less watering (...)” (Mezzetti, 2021, pp. 68). This idea is also conveyed by *Engelsk 5* (Solberg & Unnerud, 2020, pp. 164-

165). On a two-page spread there is an article-style story about a school garden. The article explains the benefits of growing your own food (Solberg & Unnerud, 2020, pp. 164-165).

As we can see from the paragraphs above, the main focus of the “food” category is on food waste and the importance of growing food locally. Especially the focus on food waste was included, presumably because it is something the students can actively help prevent. Instead of throwing away leftovers, they can use them in a new dish. Also, food is something every student has a relationship with and thoughts about, so including when presenting environmental issues can reach the students more easily than other aspects of environmental issues.

4.1.6 Weather

Textbook	Number of pages on environmental issues	Number of pages containing “Weather”	Percentage containing “Weather”
<i>Link 4</i>	21	0	-
<i>Quest 4</i>	2	0	-
<i>Engelsk 4</i>	4	0	-
<i>Link 5</i>	7	0	-
<i>Explore 5</i>	2	0	-
<i>Quest 5</i>	16	0	-
<i>Engelsk 5</i>	24	0	-
<i>Explore 6</i>	15	0	-
<i>Engelsk 6</i>	62	12	21%
<i>Quest 7</i>	18	0	-
<i>Engelsk 7</i>	47	0	-

Table 7 The extent of the category “weather” in the textbooks examined

As we can see from table 7, *Engelsk 6* (Solberg & Unnerud, 2020) is one of few books that focuses on weather as a way to talk about environmental issues. Firstly, on page 129 the textbook discusses how extreme weather may be a reason for leaving home, stating that “nature can force people to leave their homes” (Solberg & Unnerud, 2020, pp. 129). Later on in the book, in a subchapter of “Down to Earth”, extreme weather is discussed in greater detail through a three-part story. One of the learning goals for the subchapter is “to talk about the Earth and the environment” (Solberg & Unnerud, 2020, pp. 159). Over the next ten pages the authors then tell a fictional story about when a hurricane disrupts a

community from three different point of views, describing how each person experiences the hurricane and what type of reaction they and their families have towards it (Solberg & Unnerud, 2020, pp. 161-171). After the story there is a fact box saying “Climate change has resulted in stronger winds and more extreme weather. Tropical storms can sometimes be dangerous, and people have to evacuate their homes to be safe” (Solberg & Unnerud, 2020, pp. 171). There are also some questions that ask the reader to reflect on how storms can affect their lives (Solberg & Unnerud, 2020, pp. 171). While *Engelsk 6* has a big chunk of text covering this topic, none of the other books do, suggesting that the authors do not look at this as a big issue for Norwegian students, and therefore have chosen to focus on other aspects of environmental issues.

4.1.7 Lyrics

Textbook	Number of pages on environmental issues	Number of pages containing “Lyrics”	Percentage containing “Lyrics”
<i>Link 4</i>	21	1	4.8%
<i>Quest 4</i>	2	0	-
<i>Engelsk 4</i>	4	0	-
<i>Link 5</i>	7	0	-
<i>Explore 5</i>	2	0	-
<i>Quest 5</i>	16	1	6.25%
<i>Engelsk 5</i>	24	0	-
<i>Explore 6</i>	15	2	13.3%
<i>Engelsk 6</i>	62	0	-
<i>Quest 7</i>	18	3	16.6%
<i>Engelsk 7</i>	47	13	27.7%

Table 8 The extent of the category “lyrics” in the textbooks examined

The category “lyrics” includes all environmental issues text that is in poem or song form. As we can see from table 8, there are only a few books that do this, but *Engelsk 7* (Haegi et.al, 2021) uses it quite a lot. I will now present the different ways that text is presented in song or poem form in the textbooks.

In *Link 4* (Mezzetti et.al., 2020), the chapter “the environment” is introduced by a song, which makes this fit into the “lyrics” category. The song *Gula Gula* was written by Sami singer Mari Boine, the verse that strikes me the most, because it so clearly explains what

can happen if we do not stop the environmental changes, is “Listen brother / listen sister / Hear the song of our ancestors / Eatnan, our mother, is Earth / If we kill her / we also die” (Mezzetti et.al., 2020, pp. 65). In *Quest 5* there is a song called *Earth, We’re in It Together*, where the chorus is “Earth! We’re in it together, / Forever and ever. / Saving our water, land and air. / This is our planet to share!” (Bade et.al., 2020, pp. 134) In *Explore 6*, there is a *Recycle rap* which reminds the reader of the three Rs, the chorus of the song is “Reduce, reuse, recycle, it’s something we all can do. Reduce, reuse, recycle, it’s easy, you can do it, too!” (Edwards et.al., 2021, pp. 162-163). In *Quest 7* (Bade et.al., 2022) there are two texts that fit into the “lyrics” category. First, to introduce the “Tell Us about Tellus” chapter, there is a song called *I Am the Earth*, where in the chorus the Earth and the children sing to each other: “I am the Earth / You’re in our hands / I am the Earth / We’re in your care / I am the Earth / Together we stand / I am the Earth / This moment in time we share” (Bade et.al., 2022, pp. 172-173). Underneath the poem there are some questions for the reader to answer, one being “How can the children help the Earth” (Badet et.al., 2022, pp. 173). Later on in the chapter, *Tell Us about Tellus*, there is a poem with suggestions for what the reader can do to help the earth: “When you see litter in the streets/And the air smells of pollution/When you feel like it’s all piling up/Remember there is a solution” (Bade et.al., 2022, pp. 183). Under the poem there are questions for the reader to answer, on what solutions they can think of to help the planet.

Engelsk 7 (Haegi et.al., 2021), as we can see from table 8, has used “lyric” quite a lot to convey text on environmental issues. First, there is a poem called *Rise*, written by Kathy Jetnil-Kijiner and Aka Niviana. Jetnil-Kijiner is a poet from the Marshall Islands, who also has cofounded a non-profit whose mission is “to support Marshallese youth to seek solutions to climate change and other environmental impacts threatening their home island” (Haegi et.al., 2021, pp. 187). Niviana is an Inuk writer, who writes poetry about climate change, colonialism and indigenous peoples rights (Haegi et.al., 2021, pp. 187). In the textbook the poem is split into three parts, presumably because it is quite long. In the poem, the two writers each write from the perspective of their own countries, addressing each other as “sister of ice and snow; sister of ocean and sand” (Haegi et.al., 2021, pp. 184). In the first part of the poem, they introduce their islands and then introduce the rest of the poem.

Below is an excerpt from the first part of the poem. This excerpt was chosen because it highlights how the poem deals with environmental issues.

“This is a story about
the guardian of the Sea.
She sees the greed in our hearts,
the disrespect in our eyes.
Every whale, every stream,
every iceberg
are her children

When we disrespect them
she gives us what we deserve
a lesson in respect”

(Jetnil-Kijiner & Niviana in Haegi et.al., 2021, pp. 186)

The next part of the poem goes on to describe how the environmental issues in the poem have affected the two islands, Greenland and the Marshall Islands. Again, I choose to use and excerpt from the poem to illustrate what it says about the environmental changes in the two islands:

“Sister of ice and snow,
I come to you now in grief
mourning landscapes
that are always forced to change
first through wars inflicted on us

then through nuclear waste
dumped
in our waters
on our ice
and now this.”

(Jetnil-Kijiner & Niviana in Haegi et.al., 2021, pp. 190)

The last part of the poem focuses on what they call the “inconvenient truth” (Jetnil-Kijiner & Niviana in Haegi et.al., 2021, pp. 192). The “inconvenient truth” are reasons for and consequences of the environmental changes we have seen the last couple of years:

“we ask
we demand that the world see beyond
SUVs, ACs, their pre-packaged convenience
their oil-slicked dreams, beyond the belief
that tomorrow will never happen, that this
is merely an inconvenient truth.”

(Jetnil-Kijiner & Niviana in Haegi et.al., 2021, pp. 192)

As we can see from the poems and songs included in the textbooks, they vary in great lengths, from relatively straightforward, like the *recycle rap* in *Explore 6* (Edwards et.al., 2021) to more complicated like the poem *Rise* in *Engelsk 7* (Haegi et.al., 2021). Although the texts are very different, and some might be a little hard to interpret, they all present environmental issues, and they all fit into a learning goal from the English curriculum; “read and present content from various types of texts, including selfchosen texts” (Kunnskapsdepartementet, 2017, pp. 7). These poems, and more specifically the last one, *Rise*, deal with some of the systemic issues around climate change that the other categories in the textbooks examined do not cover. For example, the poem mentions “SUVs, ACs, their pre-packaged convenience” (Jetnil-Kijiner & Niviana in Haegi et.al., 2021, pp. 192), which

hints at over-consumption society we live in. Another interesting find in this category is that the poems and songs are often written by indigenous authors. Both of these finds will be elaborated on in the discussion section.

4.1.8 Water

Textbook	Number of pages on environmental issues	Number of pages containing "Water"	Percentage containing "Water"
<i>Link 4</i>	21	0	-
<i>Quest 4</i>	2	0	-
<i>Engelsk 4</i>	4	0	-
<i>Link 5</i>	7	0	-
<i>Explore 5</i>	2	0	-
<i>Quest 5</i>	16	0	-
<i>Engelsk 5</i>	24	0	-
<i>Explore 6</i>	15	0	-
<i>Engelsk 6</i>	62	0	-
<i>Quest 7</i>	18	4	22.2%
<i>Engelsk 7</i>	47	0	-

Table 9 The extent of the category "water" in the textbooks examined

Quest 7 (Bade et.al., 2022) is the only textbook that has some focus on water and how the worlds water reserve is affected by climate changes. First, there is a two-page spread on the water cycle (Bade et.al., 2022, pp. 174-175). While this is not directly a part of the environmental issues but plays a part in the ecological systems and the environment as a whole, I have chosen to include it at it sets the tone for the next pages. While it is not relevant enough to analyse in detail, but it is relevant enough to mention. On page 178, under the heading "Water, Water, Everywhere" there are some facts about water, one being that "5000 children in developing countries die every day of diseases that are caused by polluted water" (Bade et.al., 2022, pp. 178). This is followed up on the next page which focuses on fresh water and how many countries do not have access to it (Bade et.al., 2022, pp. 179). The text also mentions how people in Norway are lucky not having to worry about clean water. The text concludes by saying that "many people worry about having enough fresh water for the future. That is why it is important to learn about ways to save water" (Bade et.al., 2022, pp. 179). Under the text there are some questions for the reader to reflect on water usage, and to come up with ideas on how to save water (Bade et.al., 2022, pp. 179). The fact that only one textbook focuses on water as an environmental issue is

interesting, as for a big part of the world's population this is a real and serious problem, made worse by climate change and other environmental crises.

5. Discussion

The aim of this study was to find out how many texts on environmental issues could be found in Norwegian EFL textbooks used in the primary classroom, and to look at what topics those texts covered, using two research questions to help guide the research:

1. To what extent do EFL textbooks for grades three to seven present environmental issues?
2. Which environmental issues are presented in EFL textbooks for grades three to seven?

This was done through a content analysis, a mixed method approach, using both quantitative and qualitative data. To discuss the aims and research questions I will here look at the results from the analysis and discuss them in light of the research presented in the theory chapter. In this chapter I will discuss general findings, look at the findings from the different categories and look at topics within sustainability the textbooks did not discuss.

This study found that there are substantial mentions of environmental issues, although the amount varies greatly, and the textbooks fit well into the sustainable development goals presented by the UN. There is, however, little focus on systemic issues, but rather a focus on measures the target audience, the students, can take themselves. In addition, there is a relatively big focus on environmental issues in other countries, often in the Anglophone world, and also fairly often discussed in light of indigenous people. There is throughout the textbooks a large focus on solutions, either presenting solutions to problems or asking the students to come up with solutions.

Following the new curriculum, LK20 a new interdisciplinary topic, sustainable development was included, and should be included in every school subject. Overall, the findings from this study suggests that the textbook authors have looked at this interdisciplinary topic when writing the textbooks, as there is some mention of environmental issues in all examined textbooks from grade four to seven. As we can see from the results presented in chapter 4, *Engelsk 6* (Solberg & Unnerud, 2020) was the textbook that covered environmental issues to

the highest extent, with 29.8 percent of the textbooks covering topics on environmental issues. *Explore 5* (Edwards et.al., 2020), on the other hand, was the textbook that covered environmental issues the least, with only 1.1 percent focusing on environmental issues. This finding is interesting as, like I mentioned in the introduction, the textbook is heavily used in the primary education in Norway. Thus, the contents of it influence what many students learn. Schools that use the Gyldendal textbooks will likely teach their students less about environmental issues than schools that use the Cappelen Damm textbooks. However, as this study did not include any online materials, there is a possibility that teachers supplement with the online resources and thus teach more about environmental issues than what was found in the textbooks. On the other hand, as mentioned in the theory chapter, Gilje et.al. (2016, pp. 52) found that 80 percent of teachers in grades 5-10 primarily used textbooks as their primary teaching material in English lessons. This supports the hypothesis that schools that use Gyldendal textbooks teach their students less about environmental issues than schools that use Cappelen Damm textbooks. In addition, if the school focuses less on environmental issues, the students might view it as less important than school that do focus a lot on environmental issues. Given that sustainability and focus on environmental issues is a part of the core curriculum in LK20 (Kunnskapsdepartementet, 2020, pp. 8;15) and therefore should be included in every subject, this is problematic. We have to hope that teachers take action and teach about sustainability despite the limited focus in some of the textbooks.

Another significant finding in this study was that there was no mention of environmental issues in the third-grade textbooks. One reason for this could be that environmental issues and the conversation around sustainability is often viewed as difficult and complex, which may lead to textbooks authors and publishers viewing it as too difficult for the youngest students. Another reason for this, as mentioned in the methods chapter, could be that there is little time for English classes in the lower grades, with only 140 hours for English in grades 1-4 in total (Utdanningsdirektoratet, 2020, pp. 9). As I have experienced from teaching practice and in my job as a substitute teacher, the teachers simply do not use textbooks to teach English in the lowest grades. If this trend is international, it might also explain why the previous studies that were looked at in the theory chapter all focus on

upper primary to higher education. Another explanation for textbooks authors and publishers choosing not to focus on environmental issues is that textbooks have a limited number of pages, and that they then have prioritized not focusing on this topic. There are a lot of topics EFL textbooks can cover. In addition, education for sustainable development will also be a part of other subjects, as we saw from the studies by Vásquez et al (2021), Martínez-Medina and Arrebola (2019) and Jiménez et al (2017), so English does not have the sole responsibility for this part of education.

While English does not have the sole responsibility for teaching education for sustainable development, it plays an important part, and the topics covered by the textbooks are of value. What aspects we should focus on can be determined through science. The IPCC (the Intergovernmental Panel on Climate Change) publishes reports where they assess “the science related to climate change” (IPCC, n.d.). Valérie Masson-Delmotte, one of the scholars behind the IPCC’s sixth assessment reports, gave an interview with Dutch news agent NRC following the publication of the third instalment of the report in April 2022 (de Brugh & Luttikhuis, 2022). In the interview she discussed how one of the issues with combatting climate change is that many people do not view it as “our” problem, especially here in northern Europe. Because the climate changes have not been that big in this part of the world and we know our economies are strong, people are not that worried and therefore not willing to change a lot about how they live (de Brugh & Luttikhuis, 2022). A similar attitude can be seen in the textbooks, where the majority of the texts on environmental issues are about countries outside of Europe. This also includes the great focus on presenting environmental issues from an indigenous perspective, which will be discussed later in this chapter. However, including texts that cover that are not “our” can be problematic as the students may not relate to what the texts are trying to convey, and therefore the point of encouraging readers to take action may be lost. Including texts about other countries than Norway makes a certain amount of sense from an EFL context, and is supported by LK20, which states that students should talk about similarities and differences between Norway and English-speaking countries, many of which are outside Europe or non-Western. However, there is one example of texts from the non-Anglophone world, the story about the Wijsen sisters and their initiative to stop the use of single use plastic both in

Explore 6 (Edwards et.al., 2021) and in *Engelsk 7* (Haegi et.al., 2021), which is focused on Bali in Indonesia. However, we can assume that this story was included as the Bye Bye Plastic Bags organisation now has spread to over 50 countries all over the world (Bye Bye Plastic Bags, n.d.) and thus show how initiatives from children can make a real impact, which again can inspire the readers to take initiative and try to come up with their version of Bye Bye Plastic Bags.

To some extent the textbooks do encourage the target audience to think about the differences and similarities between Norway and other countries, as several of them have reflection questions that ask the students to reflect how they can help with the environmental issues, and what it is like for them. The textbooks could, however, be more explicit about encouraging reflection, which could help the students to relate to the stories, and maybe want to take action themselves. One textbook that explicitly mentions an action the readers can participate in, in their local communities, is *Quest 5* (Bade et.al., 2020) with their two-page spread on the “Beach Cleanup Day” held every year in Norway. This gives the reader a very specific active thing they can do to help the planet. *Quest 7* (Bade et.al, 2022) has a spread on Earth Day, another specific action the reader can take part in, which might help the reader to understand the problems with climate change more than reading stories about countries far away. More of this type of stories could be beneficial for the textbooks.

There is generally a focus on solutions and on encouraging the students to take measures to help the environment, which is interesting. The reason that the textbooks authors chose to focus on these aspects could be because of the interdisciplinary topic, sustainable development in LK20, which amongst others states that “the pupils must learn to understand that all individual activities and choices are significant” (Kunnskapsdepartementet, 2017, pp. 15). However, the solutions also often include talking to your parents, and encouraging them to for example eat less meat. While it is important that both young and old take action in stopping climate change, the large focus on “talk to your parents” is interesting. First, not all students might have parents (and the texts say parents, not guardians, caretakers or adults), which might feel insensitive and de-moralising.

Secondly, the students should not feel overwhelmed by the information they get on climate change, and placing the responsibility on them, might just make them overwhelmed and demotivated. However, the textbook authors probably assume that the students will need to include their whole family and receive support from their parents to take action and make changes that better the environment.

In several of the textbooks environmental issues are presented through the perspective of indigenous people. For example, in the category “inspiring stories”, where there is the story about the Aboriginal girl Amelia, who uses the traditions found in her culture to encourage other to live more sustainably. Also, in the “animals and nature” category we learn about the bison and how it is important to take care of it, amongst others as it is an important symbol for the Native Americans. Lastly, in the “lyrics” category there is the poem *Rise* and the song *Gula Gula*, both written from an indigenous perspective. It is interesting to note that these are also some of the only texts to take on systemic issues, like pollution and the oil-industry, and also cover more serious consequences of climate change. The texts on indigenous people fit well into the curriculum, which focuses on the importance to learn about different cultures, and has an extra focus on the Sami people, the indigenous population of Norway. This is shown in the competence aims “the pupils shall learn about the values and traditions which contribute to uniting people in our country” (Kunnskapsdepartementet, 2017, pp. 5) and “through the teaching and training the pupils shall gain insight into the indigenous Sami people's history, culture, societal life and rights.” (Kunnskapsdepartementet, 2017, pp. 6). These competence aims as well as the interdisciplinary topic “sustainable development” might be reasons for the textbooks authors to include several texts either about indigenous people or written by indigenous people.

As the “lyrics” category showed, a substantial amount of text on environmental issues are presented in the form of a poem or a song. Five of the textbooks use this genre, and in *Engelsk 7* (Haegi et.al., 2021) the poem takes up almost thirty percent of the text on environmental issues. It could be argued that especially the song *Gula Gula* and the poem

Rise take up more dire consequences of climate change, like death and there being no future if we do not act now, than the factual texts generally do. While we can only assume why the textbook authors chose to focus on poems and songs, one reason could be that rhythm, melody, and rhyme enhance the ability to remember language (Alisaari & Heikkola, 2017, pp. 233). Due to the rhythmic nature of language, learning new words, phrases, or structures can be enhanced by combining words to rhythmic movement or rhythmic reciting of the language (Alisaari & Heikkola, 2017, pp. 233). This may be a reason for the large focus on poems and songs in the textbooks. In addition to the fact that there is a competence aim stating that the students are “expected to be able to explore and use pronunciation patterns and words and expressions in play, singing and role playing” (Kunnskapsdepartementet, 2017, pp. 7), which might be another reason the textbooks authors chose to include songs and poetry to such an extent in the textbooks. This shows that the textbooks authors presumably are very guided by the curriculum when choosing topics to include in their textbooks.

As we can see from the analysis chapter, the “animals and nature” category is heavily linked to solutions. Often the texts that fit into the “animals and nature” category are followed by questions for the reader to reflect on how the animals can be helped. As noted above, this makes it very tangible for the students, which again might help with them actually taking action and maybe be mindful of what they do in their everyday life, without it being very overwhelming and scary. Overall, we can say that there is a tension between the global and local impact on environment in the topics presented in the textbooks, and that is also the case here. For example, in the “animals and nature” category, some texts focus on whole ecosystems, while others focus on one species of animals. *Quest 7* (Bade et.al., 2022) has some pages on the rainforest, a whole ecological system that is in danger, while for instance *Link 5* (Mezzetti et.al., 2021) amongst others focuses on the importance of the honeybee. The honeybee all students have a relationship with, i.e., they have seen them and as previously mentioned have heard about in media, while the rainforest has also been covered a lot in media, and the rainforest has also been covered a lot in media, and in Norway the yearly fund raising tv program, “TV-aksjonen” focused on the rainforest in 2015 (NRK, 2016).

Both the dangers of plastic to sea animals and how bees and insects are important have been discussed a lot in mainstream media during the last few years which could be a reason for the textbook writers to include texts on this in the textbooks. These are both topics that are included often in the text falling into the “animals and nature” category. In addition to these topics being discussed in media, which might have had an impact on the student, and they probably have heard about them before, they are also tangible. The students can take action and try not using as much plastic, and making sure they recycle it properly, which help the animals in the sea. Making an insect hotel and buying bee friendly flowers is also something that is tangible and that the students, with adults and maybe in school, can do

While there is little focus on cutting emissions globally, *Explore 6* (Edwards et.al., 2021) and *Link 5* (Mezzetti et. Al., 2021) mention the importance of alternative transportation to fossil fuel cars, like electric cars and trains. There is, however, a big focus on recycling in the textbooks, and the category “the three Rs” is one of the biggest in the examined textbooks, which does have a big global impact. One reason for this might be that while students use transportation of different kinds, probably including fossil fuel cars, we can assume they do not decide which type of transportation they would use on a day-to-day basis, apart from choosing to ride a bike or walk to school. In addition, a study from 2020 showed that 67percent of Norwegian students between the ages of five and thirteen walked or biked to school (Opinion AS, 2020, pp. 31), showing that the use of other modes of transportation is not that relevant in their everyday life. The students presumably have more experience with recycling, and it is easier for them to take action in.

An interesting finding is that despite the fact that 27% of the total emissions in Norway come from the oil and gas industry (Miljøstatus, 2021), none of the textbooks I examined mentioned the oil and gas industry explicitly. There were a couple of mentions of how it is better for the environment to take a train or drive an electric car, and only one about the emissions from the industry itself, the poem *Rise* in *Engelsk 7* (Haegi et.al., 2021), which mentioned the “oil slicks”. There could be several reasons for this. Firstly, oil is such a big

part of Norwegian industry, and a lot of people work in oil. Thus, the oil industry's environmental impact can feel controversial to discuss. This is supported by Tvinnereim and Ivarsflaten (2016) who found that around half of the Norwegian population wanted to continue looking for and producing oil, while the other half wanted to discontinue looking for oil. This shows that oil is a dividing topic in Norwegian society and that discussing it in the classroom, for example, might be badly received by parents whose livelihood rely on the oil industry. However, as discussed in the theory chapter, an important aspect of education for sustainable development is to have an open discussion and give the students room to explore the topics themselves and make up their own minds. The fact that Norway's reliance on oil is such a divisive issue could still be a reason why the publishers have avoided discussing the topic in the textbooks. Secondly, the oil and gas industry is quite complicated and therefore the textbooks writers could have chosen to not focus on it in the EFL textbooks. Presumably, the textbook authors find the topic too complicated to cover in the textbooks for grade four to seven. Further, the Norwegian economy is today partly based on earnings from the fossil fuel industry (Sinnes, 2021, pp. 16), making it an even more intricate topic to discuss, and may be a reason for the author to not do so. As previously mentioned, the English subject cannot cover all aspects of sustainability, and it is reasonable to assume that the textbook authors have left this topic to the sciences.

The results from this study show that there is a lack of politically controversial content on environmental issues, at least in a Norwegian context. Most of the topics covered in the textbooks do not involve issues that directly affect the Norwegian society or are controversial in Norway. For instance, the use of electric cars as a more sustainable option than fossil cars was introduced as a way to combat the issues presented by the World Commission on Environment and Development in 1987 (Eriksen, 2020, pp. 198-200). While oil and gas have not been mentioned explicitly, two of the textbooks chose to mention that it is better for the environment to drive electric cars. This implies that driving non-electric, thus gasoline cars are bad for the environment. Eriksen (2020, pp. 200-202) states that the electric car is not controversial in Norway as they give the car drivers and option to continue driving a lot, without compromising the environment greatly. Which again shows how the

textbooks avoid the more controversial topics like the oil industry, while still implying that the oil industry is bad for the environment.

While there are eight categories, a lot of the text could fit in several categories. For example, the story about the Wijzen sisters, who founded “Go Green Bali” was put in the “inspiring stories” categories, but as it is about the importance of reducing plastic consumption, it could also be put into the “the three Rs” category. Another example from the “inspiring stories” category, is the one about the Clarke brothers who help orangutans. This text could also have been put into the “animals and nature” category, as it focuses on how we can help the orangutans. Both of these have been put into the “inspiring stories” category however, because the people the story is about want others to take action, thus inspiring others to do something good for the environment. In the “lyrics” category, all text could have been put into other categories, but as there were so many, I chose to keep them in a separate category. It was also interesting to find that there was such a focus on using songs to convey topics in environmental issues.

It is interesting to note that both *Engelsk 7* (Haegi et.al., 2021) and *Explore 6* (Edwards et.al., 2021) have the story about the Wijzen sisters, with “Go Green Bali”. These two textbooks have been published by different publishers, and generally differ in what topics they focused on within environmental issues, but both have chosen to include the Wijzen sisters. While *Engelsk 7* (Haegi et.al., 2021) focuses only on text that can be included in the categories “inspiring stories” and “lyrics”, *Explore 6* (Edwards et.al., 2021) has broader topics, and include “the three Rs”, “transportation”, “animals and nature” and “lyrics” in addition to “inspiring stories”. The two publishers might both have chosen to focus on these sisters as they are only slightly older than the target audiences of the books, which presumably can inspire the students to also take action. In addition, the “Go Green Bali” initiative has gone globally, making it increasingly attractive to discuss and use as an inspiration for young students.

While both Zahoor & Janjuna and Ackesme found that the focus in textbooks often was anthropocentric, I would argue that this is not the case in the textbooks examined in this study. For instance, in the “animals and nature” category of these textbooks. For example, *Quest 7* (Bade et.al., 2022) focuses on that we need to save the rainforest to “protect against land erosion, flooding and pollution” (Bade et.al., 2022, pp. 181), which is an ecocentric focus. The rainforest should not be saved for human enjoyment, but to take care of the environment. Yes, this is also a benefit for us humans, but the main focus is the nature, the ecological aspect, thus making it non-anthropocentric.

The results from this study show that there is a varied amount of text on environmental issues, which differs from previous research. For example, Vásquez et.al (2021) and Jodoin and Singer (2019) found that the material presented in the textbooks was not in line with the UNs suggestions for education for sustainable development. I would argue that this is not the case in the textbooks examined here. While the textbooks could problematize today’s way of living more and focus on systemic issues, they do a decent job in introducing environmental issues and asking the students to reflect on what they can do to help. The findings show that more research should be done on the topic, as a way to further develop and better textbooks used in EFL education. This again will help educate the next generation in how they can help the environment, both with their interdisciplinary knowledge on the topic, and using the communicative skills they have learnt. With everyone realising climate change is a real issue, both in Norway, and in the rest of the world, we can help educate our children to take care of the world in a better way than past generations. The focus should be on showing the children what they can do, without overwhelming them, by giving them a holistic education with relatable issues that they can feel ownership of.

6. Conclusion

When I started this project, I hoped to find some text on environmental issues in Norwegian EFL textbooks. Even though previous studies from across the globe have shown that there is not necessarily a focus on environmental issues in textbooks globally and in earlier years, this study shows that it is different in Norway with the implementation of LK20. Generally,

we see that the textbooks focus on environmental issues, while the amount varies quite a bit. Given that it varies so much, which textbooks a school chooses can influence what the students learn a lot, and it is therefore important that the teachers who choose which textbooks to use, look at them carefully. The topics covered in the textbooks vary quite a bit too, but a general trend is to inspire the reader to take action and try to combat climate change. The heavy focus on solutions is in line with the latest IPCC report which states that we need to take ambitious action if we are to stop climate change. I would argue that the textbooks are also in line with the goals for sustainable development stated by the UN. Lastly, I would argue that using the textbook examined here as an inspiration for teaching English, the lessons would fulfil the curricula requirements of teaching education for sustainable development. The fact that a lot of the text on environmental issues also fulfil other curriculum goals shows that education for sustainable development is indeed an interdisciplinary topic. While the textbooks examined make a good effort at including education for sustainable development, there could be some improvements. The textbooks could benefit from including material from northern-European countries, which could be more relatable for the students. Further, the textbooks could include more texts on systemic issues, really asking the students to look critically at the way we live today in Norway. However, the results from this study give me some hope that the next generation will be inspired and capable to help the environment using what they have learnt in school, amongst others in English class.

This study has looked at how environmental issues are presented in Norwegian EFL textbooks for the primary school classroom. The findings show that all textbooks examined from grade four till seven have some text on environmental issues. While this is an exploratory study, without clear conclusion, the results can have implications for schools choosing which textbooks to use in their classrooms. This study made a first attempt at closing the research gap on education for sustainable development in textbooks, but further research is recommended on this topic and there are several aspects that could need further exploration. Firstly, it would be interesting to compare the textbooks written for LK20 with the textbooks written for LK06 and see if there is a difference in the extent that they cover environmental issues, as well as looking at which topics on sustainability they

cover. Seeing if there are any changes Next, it could be beneficial to the field to look at online resources that are available to English teachers in Norway. There might be more content on environmental issues here that are not covered in the textbooks, and we can assume that the use of digital resources will only increase in the coming years, as an effect of the pandemic and thus the topics covered here are interesting to look at. Lastly, as not all textbooks were published at the time of this study, it could be interesting to see if there would be a different result when all textbooks have been published and examined. For instance, Gyldendal, who in this study was the publisher that focused the least on environmental issues could have chosen to focus on the topic in the textbooks yet to be published. It could also be interesting to interview teachers to see if and how they use these textbooks in classrooms. While this study gives an indication of what students in Norway might learn, it is difficult to say what the learning outcome is. Looking at it would be interesting and hopefully show that education for sustainable development is included in the English classrooms across Norway.

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