

Journal of Teacher Education for Sustainability,
vol. 24, no. 1, pp. 105–115, 2022

Climate Strikes and Curricula: Insights from Norway

Tom Sverre Tomren

Western Norway University of Applied Sciences, Bergen, Norway

Abstract

In this article, the author analyzes environmental pedagogy in the Norwegian curricula for environmental and sustainability education from 1997 to 2020. The author investigates how climate-striking youth evaluate the outgoing curricula through a survey in which 88 respondents participated. The survey reveals that young climate activists demand a more action-oriented education that emphasizes political change. The author discusses the findings against the background of radical eco-pedagogy and the works of Richard Kahn, Chet Bower, and David Orr and concludes that the youth striking against climate change is practicing the curriculum they are asking for and that schools should welcome the strikes.

Keywords: curricula, sustainability education, climate strikes, Norway

Introduction:

The Climate Strikes That Challenged the Norwegian School System

In the spring of 2019, 40,000 Norwegian pupils were absent from school to protest against human made climate change in what was referred to as the “school strikes”. The strikes continued in several of Norway’s largest cities throughout 2021 and 2022, but due to Covid restrictions that were introduced in the spring of 2020, the number of participants somewhat decreased.

From the very beginning, the reaction to the school strikes from several politicians and teachers was to ask the youth to return to the classroom. One of the students at the forefront of the strikes, who was also the leader of the National Children’s Panel on Climate Change, Agnes Læg Reid (15 years old), responded as follows:

We are told that we should stop skipping school and rather be at school to learn what we need, and then change the world. But the problem is that we do not learn this in school (Sinnes, 2019, p. 216).

In the aftermath of the climate strikes, an academic debate arose as to whether the school’s education policy for sustainable development (ESD) is good enough or relevant (Kvamme & Sæther, 2019, pp. 15–16). The questions disputed evolved around how the new curricula, which was in process at the time, could be improved.

This study is motivated by the debate that emerged from the climate strikes in Norway. I shall analyze the formal curricula that formed the climate-striking youth. The benchmark for the assessments and discussions will be statements provided by the climate-striking young people and insights from radical eco-pedagogy.

When I refer to “the young people’s comments”, I am referring to data from a survey targeting the youth who participated in the climate strikes. I conducted a survey in May 2019 reaching 88 climate-striking young people. The data were collected from the young people who responded to the survey via an anonymous link on the climate-striking young people’s internal Facebook group. The tool used for this purpose was SurveyMonkey. The software was set up so that it was not possible for me to identify the respondents. I will return to the survey later in the text. When I refer to ‘radical eco-pedagogy’, I am referring to the works of Richard Kahn, Chet Bower, David Orr, Derek Hudson and others.

The general summary of the (previous) Norwegian curricula, the Syllabus of 1997 (L97) was divided into an introduction and course outlines. The general summary deals with values and principles that shall apply to the entire school’s activities. The General Summary of the L97 was valid until the summer of 2020. After the general summary, the Norwegian curriculum has a course outline section that deals with the various subjects. The course outline section originally from 1997 was renewed in 2006 and abbreviated LK06. This plan was valid until 2020 as well. The new plans for the curriculum, called ‘knowledge promotion 2020’ (Kunnskapsløftet, 2020), abbreviated LK20, were gradually introduced from August 2020. The introduction is scheduled for completion in 2023.

The aim of this analysis is to provide new knowledge on the perceived effect of sustainability education in Norway and to gain insights that could be useful for teachers, school leaders and others who are in the process of interpreting and introducing new curricula for sustainability education.

Text Analysis With Emphasis on Environmental Ideology

A curriculum is, in a narrow sense, a formal plan, the central instrument that provides a detailed formulation of the school’s general goals, requirements for the timetable, subject content, working methods and assessments.

In this article, I will start with the *formal plan*, to expose what environmental ethics and epistemology the curricula convey. The formal plan in the Norwegian context is the official outline for the school’s objectives and activities that the main educational authority in the country, the executive agency for the Ministry of Education and Research (abbreviated UDIR) has formulated for all schools. The *experienced* and *hidden curriculum* will be used in the analysis to shed light on the ideology and on the discussion of the formal curriculum (For the different meanings of the word “curricula” see, e.g., Goodlad, 1979, pp. 61–63).

The formal curricula are written texts intended to influence the knowledge, attitudes and skills of children and young people. In recent years, a hermeneutical tradition has emerged with emphasis on analyzing how texts describe and affect the relationship between man and nature. In literacy studies and pedagogy, this approach is named *Ecocriticism* (Ryan, 2020) or *Ecocritical analysis* (Viken, 2019, p. 20); in my own field of science, theology, it is often referred to as *Ecological Hermeneutics* (Hamon, 2020).

Ecocritical analysis is in many ways ‘hermeneutics’ recognition that the Anthropocene age requires new and more action-oriented scientific methods. In other words, it is a methodological development in line with what Salite et al. ask for in their editorial article in the *Journal of Teacher Education for Sustainability* (JTES) issue 2, 2021 (Salite et al., 2021, p. 2). The method in this article is inspired by these new hermeneutic approaches. I will analyze the curricula to explore to what extent they are suitable when it comes to ensuring that young people receive a strong and adequate education encouraging them to protect nature and work against climate change. For a further elaboration of the method, see Tomren (2021, pp. 82–85).

Some Key Words

According to Straume (2017), three categories of ESD practices exist in Norway: The first she calls the *technical-rational approach*. This position is characterized by a conviction that scientific knowledge of nature and natural processes will motivate pupils to think, reflect and make sensible choices in the face of environmental problems. Straume finds that this *technical-rational pedagogy* has dominated environmental education in Norwegian schools from the 1980s to the present day. The second position is more of a *philosophical, nature-ethical position*. Here, the emphasis is on ethics, morality and attitude formation. Key words here are meaning, purpose, validity and values. Straume links this position to Waldorf education and to the environmental movements. The third position is *education for sustainable development*. According to Straume, this position is a product of the processes at UNESCO. Here the emphasis is on interdisciplinarity and a connection between the environmental issues and social and economic development (Straume, 2017, pp. 83–87).

In the Swedish environmental education, Johan Öhman and Leif Östman had a similar finding. Based on the analyzed data collected in 2005, they concluded that they could divide the teachers’ approaches to environmental education into three groups. They classified the three types as: fact-oriented, normative and pluralistic sustainability education (Öhman & Östman, 2019, pp. 70–71). The third (pluralistic) largely corresponds to what Straume calls education for sustainable development.

A fourth tradition, *eco-pedagogy*, which I will focus on in this article, refers to the eco-pedagogical movement that emerged after the Rio Conference of 1992 (Straume, 2017, p. 98). Eco-pedagogy, or radical eco-pedagogy, is based on the premise that ecological problems are rooted in false interpretation of the Reality, such as anthropocentrism and Cartesian dualism. On the one hand, eco-pedagogy has been inspired by deep ecology (and Arne Næss). On the other hand, it has been affected by radical pedagogy and Paul Friele with his emphasis on social criticism (Straume, 2017, p. 99). Prominent spokespersons such as Richard Kahn, Chet Bower and David Orr argue that eco-pedagogy must challenge both the education system and the structure of the society.

The main models from Straume, Öhman & Östman will provide the basis of the terminology used in this analysis through the terms *fact-oriented*, *ethical*, *pluralistic* and *eco-pedagogical* tradition.

In addition to these four traditions, I shall use the term ‘emotional’, which I will explain later in this article, linked to the ‘outdoor life’ [friluftsliv] tradition inspired by the Norwegian deep ecology.

The Curricula That Influenced Generation Climate Strikes

In the general summary of L97, a chapter titled “The Environmentally Conscious Human Being” is essential for the ESD in the plan. This chapter emphasizes that man is both “a part of nature”, which is in line with ecological anthropology, and that “man is less dependent on nature now than before” (KUF, 1997, pp. 43–48). On the one hand, human technological capabilities are praised, while on the other hand, it is problematized that this technology has unintended consequences: The pupils must “develop insight into the connections in nature and the interaction between man and nature so that they can contribute to sustainable development” (KUF, 1997, p. 208). The chapter ends with two sections focusing on the “joy of nature”: “The education must promote joy over physical activity and the greatness of nature... Open-air life touches both body and mind”. The general summary of L97 is dominated by both fact-oriented and ethical ESD traditions, but the final section on “The Joy of Nature” points to an emotionally oriented ESD.

The Course Outline sections of L97 were, as previously explained, revised in 2006 and abbreviated LK06.

In the LK06 syllabus for *Natural Sciences* it is stated that pupils should develop certain attitudes and contribute to sustainable development. The objectives for Natural Sciences contain 101 objectives, and nine of them are related to ecology and environmental problems. Five of the nine goals are about knowledge and facts, four of these five are partly about facts, partly about discussing the facts in relation to sustainable development. One is about practical skills (practice of sorting garbage and discussions on why it is important), one is about experience of nature and reflections on man’s place in nature, and one is about describing and arguing for how one can take care of nature. Apart from a few objectives of “being able to discuss”, “argue” and “sort waste”, there are no concrete objectives on what pupils should learn about improving environmental behavior or influencing environmental policy. Up to the intermediate level, the syllabus for Natural Sciences emphasizes that school children should develop a love of nature through experiences, most often by being outdoors in nature. From upper secondary school, there is a strong emphasis on knowledge and facts (regarding nature, the environment and ecology), although some objectives mention the importance of discussing how to protect nature. In short: For the lower grades, we find a mixture of emotionally oriented, practical skills and fact-oriented ESD in the curriculum for Natural Sciences, while for the higher grades, the focus is on facts.

For the *Social Sciences* section of LK06, the subject contains Geography, History and Social Studies. Out of 122 objectives, four refer to ecologically sustainable development or protection of nature and the environment. All four are located under the heading “Geography”. The formulations in the objectives are statements expressing that pupils should be able to describe and discuss facts and debate how human actions influence the balance in the ecosystem. For the Social Studies section of the subject, which aims for pupils to gain knowledge and skills in democratic participation and governance, there is no mention of Environment and Sustainability (Udir, 2016, pp. 63–66). In short: ESD for the Social Sciences in KL06 is dominated by a fact-oriented approach.

When we come to *Religion and Ethics*, a subject which in the Norwegian curriculum is given the official title “Knowledge of Christianity, Religion, Philosophy of Life and Ethics” (KRLE) in LK06, ESD themes are mentioned in two of 129 objectives. The

theme “nature and environment” is one of (four) ethical topics that pupils must learn to “discuss” (Udir, 2016, p. 47). Finally, the ESD theme was also mentioned once in the Course Outline for Physical Education (Udir, 2016, p. 83), once in the Outline for Arts and Crafts (Udir, 2016, p. 71), and twice in the Outline for Food and Health (Udir, 2016, pp. 79–80).

To summarize: The ESD theme is given significant space in the curriculum for Natural Science (naturfag), but less in the plan for the Social Sciences (samfunnsfag), and even less in the plan for Religion and Ethics (KRLE) and Physical Education. In the book *Sustainability Didactics* (2019), Ole Andreas Kvamme and Eli Sæther claim that sustainable development has not been a prioritized theme for LK06. Our brief review does not weaken this statement (Udir, 2005, p. 28).

The main pedagogical idea suggested in LK06 is that if people gain enough knowledge and they learn to discuss the topic, humans will be able to manage nature directly for the benefit of other people and for the environment.

The Curricula Through the Eyes of the Climate-Striking Youth

After having analyzed the former curricula, we turn to the survey and how the climate-striking youth in Norway evaluate the syllabus they experienced. 88 climate-committed young people, 80 girls and 8 boys, initially answered the question, “Where have you learned about climate change?” The age of the respondents indicated that they had been educated under both the curricula of L97 and LK06. This part of the survey was a multiple choice in which they could pick several options.

84 % of respondents answered that they had learned about climate change via social media, 65 % answered the media, 61 % answered environmental organizations and 61 % answered school. Even though the topic is paid significant attention in the General Summary for L97, which was effectuated in 1997 and is mentioned in LK06, 39 % of the respondents did not respond that they had learned about climate change at school.

Despite these answers, they remember that they have had learned about the topic in school. When they were asked in which subjects they had learned about environmental problems and climate change, 85 % of the respondents answered Natural Sciences, 83 % – Social Studies, 10 % – Religion and Ethics, and 9 % – answered Norwegian [language]. The findings correspond to the amount of material that we found in the syllabus for the Course Outline section of LK06.

Another question in the questionnaire, which sheds light on the pupils’ experience of ESD in LK06, was an open question about how they felt about the way the school had included the environment and climate in their education. 50 % of the respondents expressed that the ESD they were offered was of low quality or inadequate. 25 % answered relatively neutrally. 25 % answered that the teaching had been of good quality. Measured against these answers, the majority consider that the ESD they experienced at school was weak or irrelevant.

The responses, provided by the climate-conscious youth, then take us to the next questions included in the survey, where we asked what made them dissatisfied with the ESD they encountered at school.

The survey included two more questions on this topic. The first being: “What is perceived as a weakness of the existing ESD?” The second: “What can be improved in education about the environment at school?”

Regarding the first question, a large proportion of the respondents answered that they wanted to learn more about what they could do. For example: “I want the school to teach us how to make responsible choices in our own lives, but also to teach us to stand up for what we believe in, and how we can debate and influence” (girl, aged 13). Another said: “I think the school I go to has good information about global warming, but not too much about what we can do about it” (girl, aged 17). Our review of the L97/ LK06 shows that the Natural Sciences was the subject with the most objectives related to this topic, and that the curriculum was dominated by a fact-oriented approach. The young people’s answers can thus be interpreted as a confirmation that there is a correspondence between the formal curriculum and how the curriculum is experienced, and that they are not satisfied with the approach. The climate-committed young people want more emphasis on how they can make responsible choices (ethically-oriented teaching) and how they can influence the world around them. In short, they ask for what we described as a pluralistic sustainability education.

Several respondents answered that they had learned a small portion about what constituted environmentally-friendly behavior, but only in relation to their own lifestyle and not about how these changes can be made at a political level: “There should be greater focus on what the government can do and how climate policy works. There is too much talk about what individuals can do. Many already know this.” One of the girls (aged 17) who responded to the survey said, and continued to explain that:

In lower secondary school, we went over this in Natural Science: We learned about the greenhouse effect and a bit about processes in nature and such when it comes to climate change. What I find disappointing is that it focused very much on what we as individuals do instead of learning about how to hold companies and governments accountable for the climate and environmental problems that they are responsible for.

When asked what schools could do to improve this, another respondent wrote: “Much more learning about the climate and how young people should influence politicians to take action” (boy, aged 13).

The ESD related themes in LK06 were, as we examined, included in the Geography section of the syllabus for the Social Sciences, and not in the Social Studies section. The curriculum did not outline any learning objectives linked to political influence, democracy, participation and sustainability promotion. Therefore, it is not surprising that these pupils felt that their schools did not offer ESD that emphasized political and activist action competence. There is good reason to interpret the climate strike not only as protest to climate and environmental policy, but also as a protest on gaps in both the experienced and the formal ESD plan.

In the international debate surrounding ESD, a discussion has emerged that is relevant to the question of whether to educate pupils to be agents for environmental policy. In her book, Astrid Sinnes describes this issue by looking at two sides of the debate. On the one side, you have what she refers to as “volunteers”, and on the other side, the “structuralists” (Sinnes, 2019, pp. 94–95).

Volunteers are researchers and educators who emphasize that individuals should change their life habits through voluntary individual choices. This is an approach affiliated with the philosophical, nature-ethical position referred to above. Sinnes raises objections to the approach by referring to Chantal Mouffe and Alexandra Schindel Dimick. Mouffe

believes that by focusing on individual and voluntary work to save the earth, one risks turning the question of ESD into a question of individual ethics. According to Mouffe, this depoliticizes the environmental discourse. Dimick is arguing that an environmental education that emphasizes the individual pupil's responsibility for the environment can take attention away from the politicians' responsibility to make structural changes (Sinnes, 2019, p. 94). Ingjerd Straume also makes an objection to this approach, interpreting that the depoliticization is an expression of a right-wing shift in sustainability pedagogy (Straume, 2017, p. 96). Straume published her article in 2017 after four years in Norway under a conservative right-wing government led by Erna Solberg. It is tempting to interpret Straume's remarks as political criticism of the government. KL06 was, however, created under the previous socialistic administration led by Jens Stoltenberg. If we are to interpret Straume's remark as political criticism, it is addressing the previously socialist/left-wing administration more than the conservative, right-wing administration in Norway. The findings of the survey, that the climate-striking pupils desire a stronger emphasis on how to change political structures, can be interpreted as an expression of dissatisfaction with a right-wing shift in the ESD approach.

The structuralists, on the other hand, maintain that education must focus on competence in changing political structures. The principled objections to the structuralists come from Öhman and Östman, among others. The two Swedish researchers warn against giving pupils concrete normative solutions. They are warning against an education where teachers risk making ESD a political tool for creating a predefined social system. Öhman and Östman advise against this and would rather give pupils the competence to make ethical considerations and participate in the democratic debate (Öhman & Östman, 2019, p. 78).

Curriculum LK06 Read in the Light of Radical Eco-Pedagogy

The last step is to investigate how the former Norwegian curricula can be assessed if we look at it in the light of radical eco-pedagogy and the theories of Kahn, Bowers, Orr and Hudson.

According to Kahn, environmental education (EE) has traditionally been a subject attached to the Natural Sciences with few connections to the humanities, social sciences and pedagogical theory. This has caused an environmental education that lacks system-critical perspectives. The Natural Sciences, he argues, "often lack training in theoretical critique or political analysis and prefer to promote outdoor experiences and pedagogical experiences based on outdated, essentialist and dichotomous views of nature and wilderness" (Kahn, 2010, p. 7). In this article, we have seen that in the subject-specific objectives in the outgoing Norwegian curriculum, there are more ESD goals related to Science than to other subjects. We have also seen that the objectives that refer to competence in sustainability are, to a greater extent, aiming at competence in knowledge and individual behavior than at competence in political influence. There are relatively few connections between sustainability and education in political influence. Kahn's critique of traditional approaches to environmental education, stating that this tradition is attached to a scientific approach and that this is an obstacle for system-critical competence, seems to be relevant and important for the situation facing Norwegian ESD.

Chet Bowers underlines that the epistemology that dominates at school (in the United States) presents the individual as the basic unit in a cosmos, and that the teaching

is characterized by anthropocentrism emphasizing technical-rational domination. The way the knowledge is internalized in subjects and language is thus fragmented and detached from their original context. This epistemology contributes to a worldview where nature is deprived of its moral aspects. Bowers argues that it is necessary both to change perceptions of what man is, and to swap epistemology in favor of a more ecological and cultural context-based thinking. The change must begin within the education system itself. Bowers concludes that schools should emphasize and give priority to competencies that exist in the local community, through indigenous peoples, and what is required in daily life (Bowers, 1997, pp. 7–14). A related, but somewhat different point of view, comes from Yolanda Echeгойen-Sanz and Antonio Martín-Ezpeleta at the University of Valencia, Spain. In a recent study, they show how ecofeminism offers tools that can contribute to new and more holistic epistemology and practice (Echeгойen-Sanz & Martín-Ezpeleta, 2021). Another approach, with emphasis on creating new epistemology, is focusing on adjusting the pupil's self-understanding in relation to nature and sustainability (Salite et al. 2021a, pp. 143–147).

The inputs from Bowers, Echeгойen-Sanz and Martín-Ezpeleta and Salite et al. are relevant for the evaluation of the Norwegian curricula: The subjects and disciplines taught in this country can roughly be divided and classified along the same lines as in the USA and Spain. Measured against the learning objectives for each subject, ESD in Norway was historically dominated by an approach that emphasized facts and knowledge, specifically in the subjects of Science and Geography. If Bowers is correct, the school system basically confirms and strengthens the anthropocentric and technical-rational way of teaching that has caused our current climate and environmental crisis. However, in our analyses we did identify some formulations and traditions within the Norwegian curriculum that differs from a purely Cartesian scientific approach: We found formulations that underlined outdoor life and experiences in nature – essentially, what we can refer to as emotionally-oriented ESD. The outdoor life tradition is, at its core, focused on gaining sensory impressions and experiences in nature, and should challenge the pupils emotionally to such a degree that they acknowledge that humans are an integral part of the world's ecosystem. Bower's and others work serve as a reminder that this emotional tradition, with an emphasis on outdoor life, outdoor education and affiliation to a place, and a broader self-understanding, can be an important alternative to the ESD traditions that Straume, Öhman & Östman present.

David Orr's works are also relevant in this discussion. Orr claims that traditional Western education is a form of training for powerlessness. Orr emphasizes what he calls the hidden curriculum. According to Orr, the hidden curriculum can be seen in the division of subjects and an academic world that exists separately from the rest of society, and he conveys that there is an insurmountable gap between the knowledge pupils receive through the education system, and the 'real world'. The gap is maintained through abstractions where knowledge is presented as decontextualized, ideal and theoretical. The real world, the world of politics and economics, is thus beyond the reach of schools and pupils (Orr, 2004, pp. 7–35). The fact that the climate-striking pupils left school to try and enact change in the political discourse ahead of the 2019 election, and that they took absences that would affect their diplomas, shows that the young people want to tear down this wall between school and real life. David Orr's objection is worth taking seriously.

Another academic who expresses that a good ESD requires that the schools dismantle the barriers between society and the school system is Derek Hudson. According to

Hudson, the prospect of pupils getting involved in societal change is much greater if they gain experience on how they can influence and participate in societal debates while in school. For this reason, they must experience through authentic situations (Hudson, referenced in Sinnes, 2019, p. 217). Jensen and Schnack (1997) divide these actions into two categories: direct and indirect actions. The direct actions are related to the environment (making compost, sorting recycling at its source, becoming a vegetarian, etc.). The indirect actions revolve around influencing the structures that create the problems, and rather learning how to influence them with the power to make the structural changes. For Hudson, it is an important point that these actions must be authentic, not just exercised in the classroom (Sinnes, 2019, p. 72). Pupils must leave the classroom and participate in the public debate.

Measured against Hudson's input, the pupils themselves have taken a step towards a better and more adequate ESD when they leave the classroom to participate in the climate strike. Rather than asking the pupils participating in the climate strike to return to the classroom, teachers should see this as a learning opportunity for those involved and for other students. They should encourage them both to participate and to share their experiences with their classmates. Such an approach will additionally address the need for student participation in the design of teaching, which Asta Valackienė, Brigita Kairienė and others quite rightly point out is necessary to succeed in creating a school system that forms committed citizens (Valackienė & Kairienė 2019, pp. 56–72). Expressed by the words of Arinola Adefila et al. in their recent article in *JTES* issue 1 (2021): "It is important to support learning beyond the classroom and play a role in supporting a sense of environmental citizenship and climate justice which can enhance collective and participatory processes that will sustain the changes required" (Adefila, 2021, p. 43).

An example of a teacher who has practiced and integrated ecological activism in his teaching, however in higher education, is R. B. Hamon at the University of Sheffield. In his article "Teaching Environmental Activism and Ecological Hermeneutics" (2020), he provides concrete examples from his experiences of including activism in his courses. Hamon argues that courses which deal with the environment and sustainability cannot be limited to theoretical knowledge; they must include skills in political work, lobbying and participation in environmental organizations (in addition to practical training in energy saving, travel habits, clothing, consumption patterns, food). Hamon's experiences and practices can be fertile for those who want to explore how to give concrete training in environmental activism.

Conclusions

The curricula (LK06) that influenced Generation Climate strikes in Norway gave related themes in "Education for Sustainable Development" significant space in the curriculum for Natural Science (*naturfag*), less in the plan for the Social Sciences (*samfunnsfag*), and even less in the plan for Religion and Ethics (KRLE) and Physical Education. The main pedagogical idea suggested for the ESD in this plan was that if youth gain enough knowledge and they learn how to discuss this topic, they will be able to control nature for the benefit of other people and the environment. Our survey conducted among the youth reveals that they asked for other skills than they received at school. They did not ask for scientific knowledge regarding climate change, biodiversity and sustainability, but for applicable skills in environmental policy and activism. Our reading

of Kahn, Bowers and Orr, along with Hudson and other, shows that radical eco-pedagogy offers reflections and suggests paths forward for how the ESD can be more authentic, more policy oriented and more relevant for the climate striking youth.

References

- Adefila, A., Arrobbio, O., Brown, G., Robinson, Z., Spolander, G., Soliev, I., Willers, B., Morini, L., Padovan, D., & Wimpenny, K. (2021). Ecologized collaborative online international learning: Tackling wicked sustainability problems through education for sustainable development. *Journal of Teacher Education for Sustainability*, 23(1), 41–57. <https://doi.org/10.2478/jtes-2021-0004>
- Bowers, C. (1997). *The culture of denial: Why the environmental movement needs a strategy for reforming universities and public schools*. State University of New York Press.
- Echegoyen-Sanz, Y., & Martín-Ezpeleta, A. (2021). A holistic approach to education for sustainability: Ecofeminism as a tool to enhance sustainability attitudes in pre-service teachers. *Journal of Teacher Education for Sustainability*, 23(1), 5–21. <https://doi.org/10.2478/jtes-2021-0002>
- Goodlad, J. I. (1979). *Curriculum inquiry. The study of curriculum practice*. McGraw Hill.
- Hamon, R. B. (2020). Teaching environmental activism and ecological hermeneutics. *Journal for Interdisciplinary Biblical Studies*, 2, 66–80. <https://doi.org/10.17613/b08n-b697>
- Kahn, R. (2010). *Critical pedagogy, ecoliteracy and planetary crisis: The ecopedagogy movement*. Peter Lang.
- Kirke-, utdannings- og forskningsdepartementet (KUF). (1997). *Læreplanverket for den 10-riige grunnskolen* [The curriculum for the 10-year primary school]. Nasjonalt læremiddelsenter.
- Kvamme, O. A., & Sæther, E. (2019). Bærekraftsdidaktikk, spenninger og sammenhenger [Sustainability didactics, tensions and contexts]. In O. A. Kvamme & E. Sæther (Eds.), *Bærekraftsdidaktikk* (pp. 15–43). Fagbokforlaget.
- Orr, D. (2004). *Earth in mind, on education, environment and the human prospect*. Island Press.
- Ryan, J. C. (2020). Ecocriticism. *The year's work in critical and cultural theory*, 28(1), 21–43. <https://doi.org/10.1093/ywct/mbaa018>
- Salite, I., Fjodorova, I., & Ivanova, O. (2021). How do we interact with the world in creating our lived experiences and maintaining the vitality of the world? *Journal of Teacher Education for Sustainability*, 2(2), 1–4. <https://doi.org/10.2478/jtes-2021-0012>
- Salite, I., Briede, L., Drelinga, E., & Ivanova, O. (2021a). The false self from the pedagogical perspective. *Journal of Teacher Education for Sustainability*, 23(2), 143–157. <https://doi.org/10.2478/jtes-2021-0022>
- Sinnes, A. (2019). Nye læreplaner: Tar verken forskningen eller ungdommens krav til handling på alvor [New curricula: Take neither research nor youth's demands for action seriously]. Pan. <https://www.harvestmagazine.no/pan/nye-laereplaner-tar-ikke-ungdommens-krav-til-handling-pa-alvor>
- Straume, I. (2017). *En menneskeskapt virkelighet* [A man-made reality]. Res Publica.

- Tomren, T. S. (2021). How green was Martin? An ecocritical analysis of selected Luther texts in search for a ecotheology syllabus for theological environmental education. In P. Rimmer & T. S. Tomren (Eds.), *Religion, sustainability and education: Pedagogy, perspectives, and praxis towards ecological sustainability* (pp. 82–113). Embla akademiske.
- Tomren, T. S. (2019). SurveyMonkey. *Ungdom og klimastreik* [Private archive].
- Utdanningsdirektoratet (UDIR) 2005. (2016). *Læreplanen for Kunnskapsløftet*. Grunnskolen [The curriculum for the knowledge promotion. Primary school]. Pedlex.
- Utdanningsdirektoratet (UDIR). (2015). *Læreplan i kristendom, religion, livssyn og etikk (KRLE)* [Curriculum in Christianity, religion, philosophy and ethics] (RLE1-02). <https://www.udir.no/kl06/RLE1-02> 10
- Utdanningsdirektoratet (UDIR). (2019, November, 20). *Kva er nasjonale prøver?* [What are national tests?]. <https://www.udir.no/eksamen-og-prover/prover/nasjonale-prover/om-nasjonale-prover>
- Utdanningsdirektoratet (UDIR). (2020). *Læreplan i kristendom, religion, livssyn og etikk (KRLE)* [Curriculum in Christianity, religion, philosophy and ethics] (RLE0103). <https://www.udir.no/lk20/rle01-03>
- Utdanningsdirektoratet (UDIR). (2020). *Læreplan i samfunnsfag* [Curriculum in social studies] (SAF0104). <https://www.udir.no/lk20/saf01-04>
- Utdanningsdirektoratet (UDIR). (2020). *Overordnet del – verdier og prinsipper for Grunnopplæringen* [Fagfornyelsen] [General part – values and principles for basic education] [The subject renewal]. <http://www.udir.no/lk20/overordnet-del-samlet>
- Utdanningsdirektoratet (UDIR). (2020). *Læreplan i norsk* [Curriculum for the Norwegian language] (NOR0106). <https://www.udir.no/lk20/nor01-06>
- Utdanningsdirektoratet (UDIR). (2020). *Læreplan i naturfag* [Curriculum for science] (NAT0104). <https://www.udir.no/lk20/nat01-04>
- Utdanningsdirektoratet (UDIR). (2020). *Læreplan i kroppsøving* [Curriculum for physical education] (KRO0105). <https://www.udir.no/lk20/kro01-05>
- Utdanningsdirektoratet (UDIR). (2020). *Læreplan i kunst og håndverk* [Curriculum for arts and crafts] (KHO0102). <https://www.udir.no/lk20/khv01-02->
- United Nations. (n.d.). *About the Sustainable Development Goals*. <https://www.un.org/sustainabledevelopment/sustainable-development-goals>
- Valackienė, A., & Kairienė, B. (2019). Students' participation in search for sustainability: A case study from Lithuania. *Journal of Teacher Education for Sustainability*, 21(2), 56–72. <https://doi.org/10.2478/jtes-2019-0017>
- Viken, M. (2019). *Ocean, human beings and nature. An ecocritical reading of Havboka and De usynlige*. Master's thesis at Høgskulen på Vestlandet. Repository. <https://hvlopen.brage.unit.no/hvlopen-xmlui/bitstream/handle/11250/2605886/Viken.pdf?sequence=1&isAllowed=y#page=23&zooom=100,90,909>
- Öhman, J., & Östman, L. (2019). Different teaching traditions in environmental and sustainability education. In K. Van Poeck, J. Öhman, & L. Östmans (Eds.), *Sustainable development teaching, ethical and political challenges* (pp. 70–82). Routledge.

Correspondence concerning this paper should be addressed to Tom Sverre Tomren, Associate Professor, Western Norway University of Applied Sciences, Department of Pedagogy, Religion and Social Studies, Bergen, Norway. Email: tstomren@gmail.com