Article

"Because they have technology": A comparative study of sustainable development discourses among secondary school teachers in Tanzania and Norway

Øyvind K. Mellingen

Western Norway University of Applied Sciences

Email: oyvind.kormeset.mellingen@hvl.no

Abstract

Over the last forty years, the concept of sustainable development has gained attention in large parts of the world. With it comes the need for comparative research on how the concept is understood in different contexts.

This article is a comparative discourse analysis of how Tanzanian and Norwegian secondary school teachers conceptualize sustainable development. By applying Laclau and Mouffe's (2014) discourse apparatus, I trace articulations of sustainable development across Tanzanian and Norwegian discourses.

The findings indicate that the Tanzanian teachers in the study primarily conceptualize sustainable development within a socioeconomic discourse, while the Norwegian teachers are rooted in an environmental discourse. The teachers are also embedded in a Western exceptionalism discourse constructed around the myth of "the West" as sustainable, and favour solutions emerging from Western technology and innovation. However, the study also finds that there is a critical discourse opposing this articulation of "the West".

Keywords: Sustainable Development, Norway, Tanzania, Western exceptionalism, Discourse

Introduction

In 1987, the World Commission on Environment and Development delivered their report Our Common

Future (WCDE, 1987) to the UN General Assembly. Although sustainable development (SD) as both an idea and concept existed before Our Common Future (Cheah & Huang, 2019; Holden et al., 2018; Purvis et al., 2019), the report has been credited with establishing the mainstream concept on a broader stage. Sustainable development has since gained attention, at least in parts of the world, fostering critical debates on what SD is (Connelly, 2007; Dobson, 1996; Giddings et al., 2002; Hopwood et al., 2005; Purvis et al., 2019). Simultaneously, education has been given a pivotal role in the international discourse on sustainable development, and Education for Sustainable Development (ESD) has become an investment area for international organizations and national governments, sparking even more critical debates. Some critical scholars argue that the idea of SD/ESD is a continuation of Western modernity and its relentless quest for economic growth (Andreotti, 2016; Matthews, 2011; McKenzie, 2012; Pashby & Sund, 2020; Tikly, 2023). Critics also posit that the belief in the ability of technology to deliver environmental and social sustainability has a hegemonic stance within mainstream sustainable development discourses (Eriksen, 2018; Knutsson, 2018). This almost unconditional techno-optimism entails a faith that Western technology can secure global equity and environmental protection whilst also maintaining the quality of life of the wealthiest (Knutsson, 2018). Consequently, global sustainability could ironically reproduce Western lifestyles and maintain differences between the Global North and South (Ideland & Malmberg, 2014). Many of these critics are based on post or decolonial scholarships and argue that sustainable development portrays a win-win narrative through lenses of Western exceptionalism (Eriksen, 2018; Ideland & Malmberg, 2014). Tikly (2020, p. 216) argues that such approaches to SD/ESD exert a hegemonic influence and:

> […] elide issues of power and inequality; are based on a limited idea of sustainable development as equivalent to economic growth; are Eurocentric in their assumptions about the nature of progress and of modernity itself; and are idealistic in assuming an unproblematic and linear relationship between investments in education and training and development.

Tikly (2020) advocates for a counter-hegemonic vision that seeks to transgress this Eurocentric discourse that maintains disparities. Bartlett and Vavrus (2017a) argue that a comparative case study is a useful tool for revealing such hegemonic notions. Many have also called for more comparative research that empirically investigates how SD is determined around the world (Bengtsson & Östman, 2013; McKenzie, 2012; Mellingen & Tollefsen, 2023). This paper contributes to this by studying discourses on sustainable development among Tanzanian and Norwegian teachers. I explore how sustainable development is conceptualized by Tanzanian and Norwegian secondary teachers through a comparative discourse analysis informed by Laclau and Mouffe's (2014) discourse apparatus.

Being situated in the geopolitical spatial constructions of the Global South and North, respectively, Tanzania and Norway offer interesting starting points for such an analysis of sustainable development discourses. Additionally, there is also a practical reason as to why Tanzania and Norway were chosen for this study. Through my research (Mellingen 2015; Mellingen & Tollefsen, 2023) and other capacities, I have

experience with education in both countries. I have connections and networks that make these countries a suitable choice for a comparative study. Nonetheless, the fact that I am a Norwegian doing fieldwork and analysis in a Tanzanian context is a crucial reflexive point that I will elaborate on later.

Analytical framework

In identifying conceptualizations of sustainable development I will apply some of the key concepts of Laclau and Mouffe's discourse apparatus (Laclau, 1990; Laclau & Mouffe, 2014). I also lean on Jørgensen and Phillips's (2002; 1999) more practical readings of Laclau and Mouffe's discourse theory. Laclau and Mouffe postulate that meaning is fixated when signs (such as words) are related to each other through *articulation*. A discourse is a structured totality of this articulatory practice (Laclau & Mouffe, 2014), and is structured around *nodal points*. These nodal points are privileged signs in a discourse to which other signs acquire their meaning (Laclau & Mouffe, 2014).

The struggle for the creation of meaning is an important focus for Laclau and Mouffe (Jørgensen & Phillips, 2002). They argue that the fixation of meaning is never complete; it is contingent. However, a discourse can, at one point, be perceived as being so established that the contingency is almost forgotten, and there is no obvious struggle. Laclau (1990) calls such a taken-for-granted discourse *objective*.[1] At other times, discourses can be in an open struggle with each other. Such contested discourses in Laclau and Mouffe's theory are referred to as *political* (Jørgensen & Phillips, 1999, pp. 47-48). In these struggles, discourses articulate different meanings to the same signs. Signs that are particularly open to different fixations of meaning, and that different discourses struggle to fixate a meaning to, are called *floating signifiers*. The reason for the struggle over floating signifiers is that they could often be nodal points in competing discourses (Jørgensen & Phillips, 2002). As an example, Laclau (1990, p. 28) explains how 'democracy' can be both a nodal point and a floating signifier, as its meaning varies greatly depending on what you articulate it to. Floating signifiers that refer to a space of representation are called *myths.* 'The people' is an example of such a myth, as the fixation of meaning depends on what it is articulated to (Jørgensen & Phillips, 1999; Laclau, 1990).

Since all fixations of meaning are contingent, a political conflict can become objective and vice versa. The path from the political to objectivity is achieved through *hegemonic interventions*, where one understanding prevails. Hegemonic interventions have succeeded if one discourse dominates alone (Jørgensen & Phillips, 2002). In this context, hegemony refers to the fixation of meaning across discourses (Jørgensen & Phillips, 1999).

---

[1] Jørgensen and Phillips (1999, p. 36) emphasize that Laclau also uses the term 'the social' with regard to objectivity.

In this study, I will compare and contrast the discourses among the Tanzanian and Norwegian teachers, and also look at connections between the identified discourses. This approach has been inspired by how Bartlett and Vavrus (2017a, 2017b) frame and conceptualize comparison. They argue that their comparative case study approach can be used to critique inequality, the cultural production of structures, processes, and power exploitation. The approach inherently follows two logics: a compare and contrast logic, and a second logic that traces across sites and scales. Bartlett and Vavrus (2017a) argue that comparative studies that strictly follow the first logic are flawed because they view the units of analysis as constant and unrelated to each other. They run the risk of separating the units of analysis, rather than looking for connections. Bartlett and Vavrus (2017a) argue for the second logic that seeks to understand how processes unfold and are influenced by actors and events at different locations and scales, often over time.

Method

The study consists of twelve individual and two focus group interviews with seven Tanzanian and five Norwegian secondary school teachers. The schools were selected through established contacts and are both public schools situated in urban areas. The Tanzanian school is a joint lower (O-level) and upper (A-level) secondary school, whereas the Norwegian school is a lower secondary school only.

The teachers were asked to participate through liaisons at the schools. They were selected using purposive sampling, which emphasised maximum variation in the subjects they teach (Stratford & Bradshaw, 2016). In Norway, the teachers represent six of the seven subjects that have sustainable development as an interdisciplinary theme in the current curriculum (LK20), only lacking the subject of religion. English language and mathematics are also represented. In Tanzania, seven subjects are represented. The variety is arguably a little smaller, as five of the teachers have geography as one of their subjects. However, Ms. Bilali, is the only teacher who solely teaches geography (see Table 1 for more details). It is important to note that the division of disciplines varies between the education systems of the two countries. In Tanzanian secondary schools, Geography, Civics, and History are treated as separate subjects, whereas in Norway, they are combined into a single subject called Social Sciences.

Table 1: The participant teachers

Tanzanian participants			Norwegian participants		
Name:	Subjects:	Years of experience:	Name:	Subjects:	Years of experience:

Ms. Bilali	Geography	9 years	Ada	Norwegian language, social sciences, arts and craft	5 years
Ms. Msaka	Civics and geography	13 years	Erling	Mathematics, physical education, and English	10 years
Mr. Bocco	General studies, geography	16 years	Guro	Norwegian language and social sciences	21 years
Mr. Samatta	Physics	17 years	Karoline	Social sciences and English	8 years
Mr. Msuva	History and geography	10 years	Martin	Social sciences, science, physical education, food and health	9 years
Mr. Kapombe	Geography and computer science	13 years			
Mr. Manula	English and geography	14 Years			

All the participants are anonymized. Tanzanian teachers are referred to by fictitious surnames, whilst Norwegian teachers are referred to by fictitious first names. This is because in Tanzania, teachers are commonly addressed by their surnames, whereas in Norway, teachers are commonly addressed by their first names. The interviews with the Norwegian teachers were conducted in Norwegian, whilst the interviews in Tanzania were conducted in English. This represents an issue that raises both methodological and ethical issues, which are addressed later.

As discourse analysts tend to be interested in the meeting of discourses and the struggle and conflict between them, Brinkmann and Kvale (2015) emphasize how interviews in a discourse analysis may differ from other interview approaches. Discourse analysts often use techniques that promote diversity in the responses and could even stimulate confrontations between discourses. This results in interviews with conversational traits, where the interviewer is an active part.

Before collecting data, I conducted a pilot study at a secondary school in Tanzania. I used the experience from this study to design the interview guide. The individual interviews were designed as semi-structured interviews with themes to be covered in a relatively broad and flexible way (Alvesson, 2011). The interviews began with a discussion of the teachers' relationship to sustainable development, followed by an exploration of what they consider to be unsustainable and what problems SD aims to solve. We then

discussed their respective countries' sustainability status and talked about sustainable development in different parts of the world.

After completing all the individual interviews, I conducted semi-structured focus group interviews where I aimed to bring together the discourses identified in the individual interviews. Brinkmann and Kvale (2015) argue that focus group interviews are the most suitable type of interview to bring important discourses into play. The participants were given several tasks. Firstly, the teachers were provided with the seventeen UN Sustainable Development Goals (SDGs) and asked to rank them in order of importance for their country to be sustainable. By being given the seemingly impossible task of making a prioritized ranking of the SDGs, the teachers were obliged to discuss tensions and contesting elements of the concept. The second task was specially designed to instigate discursive struggles and provoke disagreements. I collected statements from the individual interviews that involved different articulations of and positions toward sustainable development (see Table 2). These statements, from both the Norwegian and Tanzanian teachers, were put in a bowl and randomly drawn by the teachers in the focus groups for discussion. In addition, I also added some statements that did not originate from the interviews. These statements were arguments from different international discourses. Statement 3 comes from a degrowth perspective, statement 5 from a decolonial perspective, and statement 6 from a neoliberal perspective. The teachers were aware that the statements they discussed were a mixture of quotes from themselves and some that I added, but they were not informed which ones were which.

Table 2. Statements from individual interviews used for discussion in the focus groups

Statement 1	Economic growth is the root of sustainable development.	Paraphrased from individual interview
Statement 2	We have gotten to a certain point now, where we have to acknowledge that the path toward sustainability is through technology.	Paraphrased from individual interview
Statement 3	The focus on economic growth distracts us from the real issues.	From me
Statement 4	It will get worse before it gets better.	Paraphrased from individual interview

Statement 5	Sustainable development is a globalized and Western term that does not consider the local context.	From me
Statement 6	In order to compete with other countries, we can't take too many environmental concerns.	From me
Statement 7	If poor countries had been rich, the world would not be sustainable.	Paraphrased from individual interview
Statement 8	Europe is by far the most sustainable continent.	Quote from individual interview
Statement 9	To be sustainable is the same as being developed.	Quote from individual interview

The interviews were transcribed and then analysed using the digital analytical tool NVivo. Jørgensen and Phillips (1999) suggest that a discourse analysis informed by Laclau and Mouffe could start by identifying nodal points. In the initial analytical process, I coded keywords in the data material. By linking these signs together, I was able to see how signs were articulated to each other, and which had a privileged status (Laclau & Mouffe, 2014). After finding nodal points in the data material, I could identify various sustainable development discourses, or structured totalities from the articulatory practice (Laclau & Mouffe, 2014). Comparing how these nodal points were fixed to other signs within different discourses allowed me to identify floating signifiers in the data material, and thus uncover discursive struggles. At the same time, when nodal points were fixed to the same signs across the identified discourses, it suggests a hegemonic intervention where one understanding prevails (Jørgensen & Phillips, 2002).

The trustworthiness of the study

Discourse analysis is based on the premise of social constructionism, which holds that truth is socially constructed (Jørgensen & Phillips, 1999). As discourse analysis cannot identify objective facts, traditional terms used to describe the rigour of a study, such as reliability and validity, could be inappropriate for judging the quality of this kind of research (Burr, 2015). The trustworthiness and rigour of the study are still important and are addressed through established techniques within discourse analysis (Burr, 2015; Hitching & Veum, 2011; Jørgensen & Phillips, 1999), such as transparent information about both the data gathering and analysis, and reflexivity on my position, status and bias.

One way of improving the transparency of the study is by using direct quotations (Silverman, 2022; Skrede,

2017). The data material from the interviews is rich in articulations of sustainable development. As I am studying these articulations, I have allowed the empirical material to be placed in the foreground of the analysis and made room for many direct quotes. Giving space to the teachers' voices, without paraphrasing them, improves transparency and enables the readers to make their own interpretations.

Burr (2015) also suggests that member checking can be used as a means to improve the trustworthiness of a discourse analysis. I presented the paper to the participants and allowed them to read it at a late stage in the writing process. This allowed them to comment on the transcriptions (and in the Norwegian teacher's case, the translations) of the interviews and the subsequent analysis of it. This gave them the chance to moderate themselves or correct any misunderstandings they felt had occurred. As the focus group was based on the individual interviews, this also allowed the teachers to comment and revisit previous statements and positions.

My positionality

Considering reflexivity as part of the research process is imperative, especially in the case of a multinational comparative study where my position, status, and bias in the field could be seen as problematic. Reflexivity is not about seeing these influences as potential contamination that should be avoided to obtain "pure data" (Attia & Edge, 2017). Eriksen (2022) argues that the very notion of such epistemological purity is problematic, as these issues cannot be "solved," and neutrality is difficult or even impossible. Reflexivity is a way of making these limitations visible, and entails "staying with the troubles" (Stein et al., 2020) or embracing discomfort (Gannaway, 2020), whilst being mindful of how the research could potentially reproduce epistemic injustice (Tistea, 2020).

In this study, I am an outsider in multiple ways. I enter the field intending to discuss a topic (sustainable development) of which the teachers, to varying extents, have knowledge of, whereas this is my research field. This asymmetric relationship could lead the participating teachers to view me as an expert, whilst downplaying or even disclaiming their own knowledge. This could also lead the participants to think that I will "judge" them and that I am ultimately looking for "correct" answers. This outsider role is more prominent in the interviews with the Tanzanian teachers. In addition to being an expert, I am also a foreigner. This is also reinforced by the fact that the Tanzanian interviews had to be conducted in English (while the Norwegian interviews were conducted in Norwegian). Such an outsider position is not only problematic in the data construction process but also the analysis. As an outsider, I lack the cultural intuition (such as language sensitivity, local knowledge, and insider experience), to identify disguised and subtle expressions (Berger, 2015). On the other hand, in discourse analysis, a certain distance could be preferable as an insider would have difficulties seeing their taken-for-grantedness as contingent

articulations (Jørgensen & Phillips, 1999).

This outsider position also represents an important decolonial issue. The exercise of asking about sustainable development could be seen as a colonial approach in and of itself, as SD often is understood as emerging from a Western discourse. My theoretical framework and research paradigm are also situated within a Western and Eurocentric tradition. As the study will problematize Western exceptionalism, this puts my research in an epistemological squeeze. Furthermore, whilst I am embedded in a discourse that sees sustainable development as an important issue, the participants do not necessarily share this belief.

In addition to these methodological limitations, it is important to note that I do not claim that the discourses identified are representative of Tanzanian and Norwegian education or for all teachers in the two respective countries.

Analysis

In the initial analysis and coding, it appears that sustainable development is generally articulated within two different discourses in the data material. Whilst the Norwegian teachers are mainly embedded in what can be identified as an environmental discourse, the Tanzanian teachers articulate SD within a socioeconomic discourse. This emphasis is apparent in the ranking of the SDGs in the focus group interviews (see Table 3).

Table 3. The teacher's ranking of the 17 SDGs from most important to least important

Tanzanian focus group:	Norway focus group:
1. Good education	1. Climate change
2. No poverty	2. Good health and well-being
3. Good health and well-being	3. Responsible consumption and production
4. Zero hunger	4. Zero hunger
5. Clean water and sanitation	5. No poverty
6. Life on land	6. Decent work and economic growth
7. Climate change	7. Industry, innovation, and infrastructure
8. Peace, justice, and strong institutions	8. Life below water
9. Gender equality	9. Reduced inequalities
10. Industry, innovation, and infrastructure	10. Life on land
11. Affordable and clean energy	11. Sustainable cities and communities

12. Life below water	12. Peace, justice, and strong institutions
13. Responsible consumption and production	13. Gender equality
14. Decent work and economic growth	14. Clean water and sanitation
15. Sustainable cities and communities	15. Affordable and clean energy
16. Reduced inequalities	16. Good education
17. Partnerships for the goals	17. Partnerships for the goals

In this ranking, the Tanzanian teachers' top four priorities are *good education*, *no poverty*, *health and well-being*, and *zero hunger*. Mr. Samatta argues for this by quoting Tanzania's first President Julius Nyerere: "Let me remind you, our former President Nyerere said we are fighting three enemies, so we should remember those three enemies; ignorance, poverty and diseases". Although some of the same SDGs are prioritized by the Norwegian teachers, the ranking is considerably different. Goals such as *climate change* and *responsible consumption and production* are considered as important and ranked higher. When discussing why some of the other goals were not prioritized, Erling explains: "They are necessary. Clean water and electricity, and things like that. But we have those fixed. That is why Norway can prioritize the bigger world responsibilities. We are in a different position than other countries."

These rankings indicate the sustainable development discourses the teachers are embedded in. The Tanzanian teachers articulate sustainable development within a discourse that has a strong emphasis on socioeconomic issues. The discourse is structured around the signs *education*, *good health*, and *living standards*, as the teachers tend to return to these signs to describe and discuss sustainable development. I therefore see these as nodal points in the discourse. An example is how Mr. Kapumbe talks about problems that need to be overcome to achieve sustainability:

> As I said, speaking on health facilities. I like speaking of that because it directly touches people. So, having a well-sustainable development, many death cases could be avoided. Some patients could be dying because a certain device has been destroyed. Diseases would be minimized if there were devices, in particular technological devices. (Mr. Kapumbe)

Here, Mr. Kapumbe also articulates sustainable development in terms of another nodal point identified, technology. This is a frequent articulation by both the Tanzanian and Norwegian teachers. Tanzanian teachers do also to some extent articulate SD to environmental issues, especially when giving examples of unsustainable development. Here, the utilization of local *resources* is a recurring articulation. The local use of water, forests, land, minerals, and wildlife is seen as an especially important environmental issue as Mr. Bocco explains:

> It is very important to manage natural resources because we use those for our life. Our life today and the life of other coming generations. So, we have to use it today without compromising the future use.

> Most of the resources we are referring to then are land, forests, sources of water, and other resources of water, such as fish and wildlife. (Mr. Bocco)

The Norwegian teachers conceptualize sustainable development within an environmental discourse that is often articulated to *climate change*, *energy production*, *consumption,* and *waste management.* Climate change in particular is important within the Norwegian discourse, as Martin puts it:

> First and foremost, I think that we need to use our heads and do something about what we know has consequences for the Earth. And very often I am going to the issue of CO2 because it is so hard to avoid. It affects so much. As someone interested in food and teaching food and health, that makes me think about using local food and thinking about our choices. But also about the use of cars. (Martin)

Martin demonstrates two strong tendencies among the Norwegian teachers in the study. Firstly, climate change is seen as a consequence of most unsustainable activities. *Climate change* becomes an important nodal point of a discourse that is almost entirely articulated to environmental issues. Secondly, Norwegian *consumption* patterns of international products are considered highly problematic from an environmental point of view, where clothes from the East and avocados and meat from the South are often used as examples. Ada makes many of the same points and highlights another tendency among the Norwegian teachers: that waste management or recycling is seen as an important part of sustainable development:

> It is important. And we are heading in the wrong direction, regarding consumption. The focus is not on re-use or limitations. We have such a good economy that we can buy something new when it breaks, or before it breaks for that matter. (Ada)

Seeing the weighty emphasis on environmental issues among the Norwegian teachers, and the (although not as strong) emphasis on socioeconomic issues by the Tanzanians, the teachers seem to frame sustainable development within two different discourses. The Tanzanian teachers do also articulate environmental issues to a certain extent, but in a notably different manner than their Norwegian colleagues. While the Norwegian teachers articulate environmental issues to *climate change* and emphasize *global* causes and consequences, the Tanzanian participants connect environmental issues to the exploitation of *local natural resources* and express that these environmental issues have both *local* causes and consequences. *The environment* then becomes a floating signifier between these discourses, as a floating signifier is a sign different discourses articulate different signs to (Jørgensen & Phillips, 2002).

A hegemonic discourse on Western exceptionalism

There are also similarities that suggest a hegemonic intervention across the two discourses. I identify this as a discourse centred on Western exceptionalism, where the teachers tend to consider Europe and North America as the role model for a sustainable world. Some teachers, like Mr. Manula, Mr. Samatta, and Karoline argue from a socioeconomic point of view that highlights Western standards of living, education, industrial base, economic development, and life expectancy. Other teachers, such as Mr. Kapumbe, Mr.

Bocco, Mr. Msuva, Ada, Erling, and Martin argue from an environmental standpoint. The teachers argue that sustainable development issues in the West are not as severe as problems in Africa: "Because they have technology. They have more researchers, they have more innovation" (Mr. Msuva).

The Norwegian teachers are not as categorically positive about the sustainability of Western countries as the Tanzanians, mainly because of their high levels of consumption. But they share the same strong belief that the solutions will come from Western technology and innovation, and that the rest of the world needs to keep up:

> I believe that we in Norway are miles ahead of other countries in the world. And as with everything else in the world, at one point it could be healthy and sensible to pat ourselves on the shoulder and say we are good. We are doing very well, and maybe we should be happy with that for a while and let more places move up a level before moving on. (Erling)

Technology can be identified as another nodal point in this discourse. It is often articulated with *modern society*, *research, capital,* and *innovation*. A dichotomy is then constructed between the modern and the traditional, with the former being seen as sustainable, whilst the latter is not:

> We start with these developed countries. That is environmental conservation. They have researched forests. So, environmental conservation in the developed world is better than in our country. Sometimes we do bushfires, we do traditional kinds of farming, not good ways to approach the environment. (Mr. Bocco)

> Our environment is not sustainable. Because there are some ongoing activities, which we are doing, which destruct our environment. We have bushfires, we have for example overgrazing especially in pastoral societies which disrupts the issues of water resources and rivers. (Mr. Manula)

Mr. Manula and Martin hold Western countries as an ideal and advocate for Western ways. They argue that African countries can learn how to be sustainable from the Western world.

> In most cases, we can believe that many of the projects are coming from those countries to our country. And even some sets of education are coming from those countries to let us know what sustainable development is, and how we can control and manage our environment. So we believe, and I think it is the way it is, that these countries are somewhat developed in these areas. (Mr. Manula)

> I am thinking of the big picture, like the biggest problem around us, to my knowledge, is the CO2 emissions around the world. I think the most important thing we do is help, we rich countries, we help underdeveloped countries to get more environmentally friendly alternatives to energy. (Martin)

Subsequently, many of the teachers in the data material argue in a Rostowian-like manner where Western society represents the highest level:

> In the matter that human beings are going from the poor lower level of production to the upper level of production. It is development. And the way that they are doing it economically, socially, and politically. Those well-developed political countries are those with a good level of education. So, when we are talking about development we are talking of movement of the lower stage to the upper stage. (Mr. Bocco)

> It is clear that if you look at countries with a different level of development you can think like that: Those who haven't started the transition to wind and hydropower, have other and older types of technology. (Erling)

These findings suggest that many of the Norwegian and Tanzanian teachers conceptualize SD within a Western exceptionalism discourse that highlights that the solutions to both socioeconomic and environmental issues originate from research and innovation from the West. T*he West*, *the developed world,* or *rich countries* become nodal points that are articulated to elements like *sustainable*, *new technology*, *innovation, research, money, education, modern, and environmentally friendly. Whilst the developing countries* are articulated to signs like *unsustainable, poor, uneducated,* and *old technology.*

Discursive struggle

However, these articulations are not unopposed in the data material, indicating a discursive struggle. This suggests that the Western exceptionalism discourse has not attained what Laclau (1990) calls objectivity, meaning it is not perceived to be so established that the contingency is forgotten. One example is Martin, who flips his previous argumentation around when asked which country he finds most sustainable:

> I want to say Sudan, without knowing so much about Sudan, I can imagine that. It is not a small country. Most people live in not necessarily in poverty, but some do. They don't have the opportunity to travel and use fossil fuels. At the same time, they do agriculture the old-fashioned way. They grow food for themselves and their family. But I am on thin ice here. It is the way I think. It is not the same consumerist society we have in Western countries. That is the key word. That the consumption is smaller. (Martin)

There are of course many objections to naming Sudan the most sustainable country in the world, but the most interesting here is that this statement points to a discursive struggle. Martin's reasoning represents a recurring theme within the data material, as many of the teachers express conflicting positions within the same interview. Martin is arguing that old-fashioned agriculture, and arguably also poverty, are sustainable, whilst previously arguing that the rest of the world needs to learn from "rich countries". This somewhat inconsistent argumentation could indicate a discursive struggle both within the individual teachers and between them. More conflicting positions emerged in the focus group interviews. In the conversation below, the Tanzanian teachers were discussing the statement "If poor countries had been rich, the world would not be sustainable."

> Mr. Samatta: Not true.

> Ms. Bilali: For me it is true.

> Ms. Msaka: It is true! Everyone would be busy utilizing the resources, destructing the environment.

> Ms. Bilali: Yeah, everyone.

> Mr. Samatta: Don't you see that it would be high technology?

> Ms. Bilali: Eh, technology.
>
> Ms. Msaka: We will destroy everything. Not taking care of the environment. Everybody would be busy being rich.
>
> Mr. Samatta: So, you say that we have to remain poor, and those countries that are poor are going to stay poor?

The sustainability of rich countries and technological optimism is met with scepticism from Ms. Bilali and Ms. Msaka. They point out that rich societies put more strain on the environment and that better technology does not necessarily make them more sustainable. Mr. Samatta then critically addresses an ethical issue with the statement that such a view could be an argument for poor countries to remain poor. The discussion continues with Mr. Manula weighing in:

> […] We can reach a time when the world has no forests, no rivers, no big lakes. All the waters are extinct. That does not mean that in Europe they have no water. They have lakes, they have rivers. But they are sustainably using them. So, the problem is that if we could be rich like Europeans, we could sustain the environment. (Mr. Manula)

Mr. Manula here opposes Ms. Bilali and Ms. Msaka and fixates sustainable development within the Western exceptionalism discourse presented earlier. The same discursive struggle could also be found in the Norwegian focus group:

> Martin: What I think we are good at. We are innovative in Norway. We have development, we have good education. We are good and a little smarter. We have money to test and try. And I believe we share this around the world. It is super important to get technology to other countries. But that is only an illusion I have.
>
> Guro: But that is an imperialist mindset if we want to put it like that. If we are going to give technology to another place, and they have a lower climate footprint than us. In a way maybe we should learn from them. The opposite.
>
> Martin: Yes. But there is no doubt that we need to get technology in China to stop using coal. Do something else. And I think that is needed. Yes, we have to get better as well, but they need help. The Chinese are not the stupidest though.
>
> Karoline: Speaking of imperialist mindset.
>
> Martin: In some corners of the world, they need help. It has to get there.

Here, Martin and Guro take opposite positions. Martin expresses Western exceptionalism, whilst Guro finds the idea that Norway is going to assist countries with a lower carbon footprint troubling. She believes that perhaps it should be the other way around and argues against this discourse. Guro, Ms. Bilali, and Ms. Msaka are the strongest advocates for such a view and articulate SD within what I frame as a critical discourse. This discourse critically addresses technological optimism and how this can be understood as a continuation of Western influence and hegemony.

The apparent struggle between these discourses constructs *the West* and *the developing countries* as

floating signifiers. These floating signifiers are also myths, an imagined social space to which different discourses articulate different signs (Jørgensen & Phillips, 1999; Laclau, 1990). As previously mentioned, in the Western exceptionalism discourse, signs like *the West*, *the developed world,* or *rich countries* are articulated to elements like *sustainable, new technology*, *innovation, research, money*, *education*, *modern, and environmentally friendly.* Yet, in the critical discourse, the same signs are articulated to *over-consumption* and *destruction of environment.* On the other hand, *the developing countries* are also a myth that the Western exceptionalism discourse articulates to signs like *unsustainable, poor, uneducated,* and *old technology.* The critical discourse articulates this myth to signs as *low footprint, natural, environmentally friendly,* and *self-reliant.*

Discussion

There are few studies on how sustainable development is conceptualized in Tanzanian education, and the findings of this study contribute to filling this gap. However, studies on environmental education in Tanzania (Kimaro, 2018; Kimaryo, 2011; Mtaita, 2007) confirm that Tanzanian teachers often see environmental issues as mostly local problems. Many studies are also consistent with the finding that Nordic education generally leans towards an environmental interpretation of sustainable development (Borg et al., 2014; Jonsson, 2008; Korsager & Scheie, 2019; Mellingen & Tollefsen, 2023).

Several researchers have also pointed towards a technology discourse in Nordic education (Eriksen, 2018; Ideland & Malmberg, 2014; Ott, 2019; Selboe & Sæther, 2018; Sinnes & Straume, 2017; Witoszek, 2017). This study complements these studies. It traces this discourse across locations, revealing technological optimism and Western exceptionalism in a context that is not in the Global North. This only strengthens the notion of the epistemological supremacy of "Western knowledge" (Salinas, 2020). Such a discourse disregards context, diversity, and indigenous knowledge in favour of "universal" Western solutions. It portrays a myopic, decontextualized, and even dangerous Western exceptionalism, as the North is solving the problems of the South (McKenzie, 2012; Pashby & Sund, 2020) by highlighting the positive side of Western modernity, whilst hiding its many darker sides (Mignolo, 2011).

This suggests that there are strong similarities between how the Tanzanian and Norwegian teachers in this study conceptualize SD. However, there could also be a danger in highlighting these connections. Bengtsson and Östman (2013), who apply Laclau and Mouffe's discourse theory to ESD policies in different contexts, warn that a comparative discourse analysis that is too sensitive to similarities could overlook the differences in how ESD is given meaning in particular contexts. This kind of focus could reduce the analytical perception of the particular practices to an understanding of reproduction. In relation to that, it is important to highlight that this study finds that the teachers do articulate very different signs to sustainable

development. Because of this, sustainable development could in itself be considered a floating signifier. The Norwegian teachers in the study conceptualize sustainable development as mostly an environmental concept with a global scope, whilst the Tanzanian teachers see the concept as first and foremost a socioeconomic concept with a local environmental focus. Nevertheless, it is noteworthy that whilst the Norwegian and Tanzanian teachers understand SD differently, the solution to SD issues in both cases appears to be modern technology and innovation.

The study also identifies a discursive struggle between a Western exceptionalism discourse and a critical discourse. Nonetheless, SD is more often than not articulated within the Western exceptionalism discourse, and the myths adhering to this discourse are dominant. This indicates that the discourse has a leading position with the teachers participating in this study. Myths demarcate a totality by ascribing it to an objective content and limit what is meaningful to discuss (Jørgensen & Phillips, 2002). When the myth of the West as a sustainable beacon and technological role model is dominating, the space for alternative perspectives is diminished.

Conclusion

Throughout this study, I have identified different sustainable development discourses among the Tanzanian and Norwegian teachers. The Tanzanian teachers mostly articulate sustainable development to nodal points like *education*, *good health,* and *living standards,* whilst the Norwegian teachers tend to articulate it to *climate change*, *energy production*, *consumption,* and *waste management.*

The Tanzanian socioeconomic discourse and the Norwegian environmental discourse are also connected through a hegemonic discourse centred on Western exceptionalism. The teachers highlight *the West* or *the rich countries* as role models for sustainable development and tend to see Western technology and innovation as the path to sustainability. However, based on the data material, this Western exceptionalism discourse is in a discursive struggle with a more critical discourse that opposes these views. The identified discourses in this study raise more questions about their origins and connections. A further outcome of this study is therefore a call for more studies that can address these questions and the multiple perspectives of such issues.

References

Alvesson, M. (2011). *Interpreting interviews*. Sage.

Andreotti, V. d. O. (2016). Postcolonial Perspectives in Research on Higher Education for Sustainable Development. In M. Barth, G. Michelsen, M. Rieckmann, & I. Thomas (Eds.), *Routledge Handbook of Higher Education for Sustainable Development* (pp. 194-206). Routledge.

Attia, M., & Edge, J. (2017). Be(com)ing a reflexive researcher: a developmental approach to research methodology. *Open review of Educational Research, 4*(1), 33-45. https://doi.org/10.1080/23265507.2017.1300068

Bartlett, L., & Vavrus, F. (2017a). Comparative Case Studies: An Innovative Approach. *Nordic Journal of Comparative and International Education (NJCIE), 1*(1). https://doi.org/10.7577/njcie.1929

Bartlett, L., & Vavrus, F. (2017b). *Rethinking Case Study Research. A Comparative Approach*. Routledge.

Bengtsson, S., & Östman, L. (2013). Globalisation and education for sustainable development: Emancipation from context and meaning. *Environmental Education Research, 19*(4), 1-22. https://doi.org/10.1080/13504622.2012.709822

Berger, R. (2015). Now I see it, now I don't: researcher's position and reflexivity in qualitative research. *Qualitative Research, 15*(2), 219-234. https://doi.org/10.1177/1468794112468475

Borg, C., Gericke, N., Höglund, H.-O., & Berggman, E. (2014). Subject- and experience-bound differences in teachers' conceptual understanding of sustainable development. *Environmental Education Research, 20*(4). https://doi.org/10.1080/13504622.2013.833584

Brinkmann, S., & Kvale, S. (2015). *InterViews: Learning the craft of qualitative research interviewing.* (3rd ed.). SAGE.

Burr, V. (2015). *Social Constructionism* (3rd ed.). Routledge.

Cheah, S. L., & Huang, L. (2019). Environmental Citizenship in a Nordic Civic and Citizenship Education Context. *Nordic Journal of Comparative and International Education, 3*(1), 88-104. https://doi.org/10.7577/njcie.3268

Connelly, S. (2007). Mapping Sustainable Development as a Contested Concept. *Local environment, 12*(3), 259-278. https://doi.org/10.1080/13549830601183289

Dobson, A. (1996). Environment sustainabilities: An analysis and a typology. *Environmental Politics, 5*(3), 401-428. https://doi.org/10.1080/09644019608414280

Eriksen, K. G. (2018). Education for sustainable development and narratives of Nordic exceptionalism: The contributions of decolonialism. *Nordidactica, 2018*(4), 21-42.

Eriksen, K. G. (2022). Decolonial methodology and the reflexive wrestles of whiteness. *Reconceptualizing Educational Research Methodology, 13*(2), 99-116. https://doi.org/10.7577/rerm.4666

Gannaway, J. (2020). Knocking, Unsettling, Ceding: A non-Indigenous teacher's journey towards decolonizing teacher practice in a "remote Indigenous community". *Nordic Journal of Comparative and International Education, 4*(1), 102-117. https://doi.org/10.7577/njcie.3553

Giddings, B., Hopwood, B., & O'Brien, G. (2002). Environment, economy and society: fitting them together into sustainable development. *Sustainable Development, 10*(4), 187-196. https://doi.org/10.1002/sd.199

Hitching, T. R., & Veum, A. (2011). Introdukjson. In T. R. Hitching, A. B. Nilsen, & A. Veum (Eds.), *Diskursanalyse i praksis: Metode og analyse* (pp. 11-39). Høyskoleforlaget.

Holden, E., Linnerud, K., Bannister, D., Schwanitz, V. J., & Wierling, A. (2018). *The Imperatives of Sustainable Development: Needs, Justice, Limits*. Routledge.

Hopwood, B., Mellor, M., & O'Brien, G. (2005, 02/01). Sustainable Development: Mapping Different Approaches. *Sustainable Development, 13*(1), 38-52. https://doi.org/10.1002/sd.244

Ideland, M., & Malmberg, C. (2014). "Our common world" belongs to "Us": constructions of otherness in education for sustainable development. *Critical Studies in Education, 55*(3), 369-386. https://doi.org/10.1080/17508487.2014.936890

Jonsson, G. (2008). An Approach Full of Nuances – On Student Teachers' Understanding of and Teaching for Sustainable Development. In J. Öhman (Ed.), *In Values and Democracy in Education for Sustainable Development* (pp. 93-108). Liber.

Jørgensen, M., & Phillips, L. (2002). *Discourse analysis as theory and method*. Sage.

Jørgensen, M. W., & Phillips, L. (1999). *Diskursanalyse som teori og metode* (Vol. 11). Roskilde Universitetsforlag.

Kimaro, A. R. (2018). *Integrating Environmental Education (EE) for Sustainability into Primary School Curriculum in Tanzania: Exploring Stakeholders' View and Perceptions* [PhD dissertation, University of Education Schwäbisch Gmünd].

Kimaryo, L. A. (2011). *Integrating Environmental Education in Primary School Education in Tanzania Teachers' Perceptions and Teaching Practices* [PhD dissertation, Åbo Akademi University]. Åbo.

Knutsson, B. (2018). Green Machines? Destabilizing Discourse in Technology Education for Sustainable Development. *Critical Education, 9*(3). https://doi.org/10.14288/ce.v9i3.186283

Korsager, M., & Scheie, E. (2019). Students and education for sustainable development – what matters? A case study on students' sustainability consciousness derived from participating in an ESD project. *Acta Didactica Norge, 13*(2), 6. https://doi.org/10.5617/adno.6451

Laclau, E. (1990). *New Reflections on the Revolutions of Our Time*. Verso.

Laclau, E., & Mouffe, C. (2014). *Hegemony and Socialist Strategy: Towards a Radical Democratic Politics* (2nd ed.). Verso.

Matthews, J. (2011). Hybrid Pedagogies for Sustainability Education. *Review of Education, Pedagogy and Cultural Studies, 33*(3). https://doi.org/10.1080/10714413.2011.585288

McKenzie, M. (2012). Education for Y'all: Global Neoliberalism and the Case for a Politics of Scale in Sustainability Education Policy. *Policy Futures in Education, 10*(2), 165-177. https://doi.org/10.2304/pfie.2012.10.2.165

Mellingen, Ø. K. (2015). *From Ideal to realities: A curriculum inquiry of the implementation of the Geography syllabus in secondary schools in Tanzania*.[Master's thesis, Bergen University College]. http://hdl.handle.net/11250/2481601

Mellingen, Ø. K., & Tollefsen, I. (2023). Bærekraftig utvikling i norsk skoleforskning. En litteraturgjennomgang. In T. S. Tomren (Ed.), *Utdanning for bærekraft. Erfaring og forskning fra barnehage og skole* (pp. 51-72). Cappelen Damm Akademisk. https://doi.org/10.23865/noasp.193.ch3

Mignolo, W. D. (2011). *The Darker Side of Western Modernity: Global Futures, decolonial Options*. Duke University Press.

Mtaita, U. Y. (2007). *Stakeholders' perception of their participation in environmental education in Tanzania* [Master's degree, The University of Waikato]. https://hdl.handle.net/10289/2456

Ott, A. (2019). Kritisk tenkning og bærekraft i fagfornyelsen. In M. Ferrer & A. Wetlesen (Eds.), *Kritisk tenkning i samfunnsfag* (pp. 30-49). Universitetsforlaget.

Pashby, K., & Sund, L. (2020). Decolonial options and challenges for ethical global issues pedagogy in Northern Europe secondary classroom. *Nordic Journal of Comparative and International Education (NJCIE), 4*(1), 66-83. https://doi.org/10.7577/njcie.3554

Purvis, B., Mao, Y., & Robinson, D. (2019, 2019/05/01). Three pillars of sustainability: in search of conceptual origins. *Sustainability Science, 14*(3), 681-695. https://doi.org/10.1007/s11625-018-0627-5

Salinas, C. (2020). The pedagogy of Detachment and Decolonial Options: Reflections from a `minoritized´ Point of View. *Nordic Journal of Comparative and International Education, 4*(1), 10-25. https://doi.org/10.7577/njcie.3563

Selboe, E., & Sæther, E. (2018). Økologisk medborgerskap: Norsk ungdoms syn på ansvar og løsninger. In H. Haarstad & G. Rusten (Eds.), *Grønn omstilling: norske veivalg* (pp. 183-199). Universitetsforlaget.

Silverman, D. (2022). *Doing Qualitative Research* (6nd ed.). Sage.

Sinnes, A., & Straume, I. (2017). Bærekraftig utvikling, tverrfaglighet og dybdelæring: fra big ideas til store spørsmål. *Acta Didactica Norge, 11*(3), 7. https://doi.org/10.5617/adno.4698

Skrede, J. (2017). *Kritisk diskursanalyse*. Cappelen Damm akademisk.

Stein, S., Andreotti, V., Suša, R., Amsler, S., Hunt, D., Ahenakew, C., Jimmy, E., Cajkova, T., Valley, W., Cardoso, C., Siwek, D., Pitaguary, B., D'Emilia, D., Pataxó, U., Calhoun, B., & Okano, H. (2020). Gesturing Towards Decolonial Futures: Reflections on Our Learnings Thus Far. *Nordic Journal of Comparative and International Education, 4*(1), 43-65. https://doi.org/10.7577/njcie.3518

Stratford, E., & Bradshaw, M. (2016). Qualitative Research Design and Rigour. In I. Hay (Ed.), *Qualitative Research Methods in Human Geography* (pp. 117-129). Oxford University Press.

Tikly, L. (2020). *Education for Sustainable Development in the Postcolonial World: Towards a Transformative Agenda for Africa*. Routledge.

Tikly, L. (2023). Decolonizing Education for Sustainable Futures: Some Conceptual Starting Points. In Y. Hutchinson, A. A. C. Ochoa, J. Paulson, & L. Tikly (Eds.), *Decolonizing Education for Sustainable Futures*. Bristol University Press.

Tistea, I. (2020). "Reflexivity of reflexivity" with Roma-related Nordic educational research. *Nordic Journal of Comparative and International Education, 4*(1), 26-42. https://doi.org/10.7577/njcie.3579

WCDE. (1987). *Report of the World Commission on Environment and Development: Our Common Future*. https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf

Witoszek, N. (2017). Teaching sustainability in Norway, China and Ghana: challenges to the UN programme. *Environmental Education Research, 24*(6), 831-844. https://doi.org/10.1080/13504622.2017.1307944