



Differentiation, didactics and inequality

How rich and poor populations are educated for
sustainability

Linus Bylund



Differentiation, didactics and inequality

ACTA UNIVERSITATIS GOTHOBURGENSIS
GOTHENBURG STUDIES IN EDUCATIONAL SCIENCES 479

Differentiation, didactics and inequality

How rich and poor populations are educated for sustainability

Linus Bylund



UNIVERSITY OF
GOTHENBURG

© LINUS BYLUND, 2023
ISBN 978-91-7963-145-1 (printed)
ISBN 978-91-7963-146-8 (pdf)
ISSN 0436-1121

Editor: Olof Franck
The publication is also available in full text at:
<http://hdl.handle.net/2077/78203>

Subscriptions to the series and orders for individual copies sent to: Acta
Universitatis Gothoburgensis, PO Box 222, SE-405 30 Göteborg, Sweden or to
acta@ub.gu.se

Cover Image: Kya Sands/Bloubosrand 2, by Photographer Johnny Miller, used with
permission from his project “Unequal Scenes” (<https://unequalscenes.com>).

Photographer: Cathrine Sjölund Åhsberg

Print:
Stema Specialtryck AB, Borås, 2023



Abstract

Title: Differentiation, didactics and inequality – How rich and poor populations are educated for sustainability
Author: Linus Bylund
Language: English
ISBN: 978-91-7963-145-1 (printed)
ISBN: 978-91-7963-146-8 (pdf)
ISSN: 0436-1121
Keywords: biopolitics, didactics, differentiation, ESD, geography of education, inequality

The world is facing pressing challenges arising from human activities, such as climate change, biodiversity loss, and depletion of resources. To meet these challenges, UNESCO has launched three initiatives on education for sustainable development (ESD) over the course of the past two decades. These educational initiatives have been global in their scope and the ambition with UNESCO's work is to engage humanity collectively in a common endeavor for a just and sustainable future. However, this thesis critically examines the viability of implementing ESD in an equal and just manner in a world marked by staggering inequality. It can be questioned whether all of humanity is addressed in a just and equal way or whether ESD is rather adapted and differentiated to "suit" rich and poor populations' perceived lives and lifestyles. The thesis takes a starting point in these queries by exploring and problematizing how educational differentiation, didactics and inequality are interlaced in ESD. Drawing on Foucauldian biopolitical theory, the thesis thus aims *to explore and problematize educational differentiation between rich and poor populations in the global implementation of ESD from a didactical perspective*. This is done through a problematization of educational differentiation through the didactic *who?*-question, understood both as a governing tool that can be used to accommodate difference and diversity among students, but also as a tool that carries the risk of perpetuating societal inequalities. Furthermore, the thesis empirically explores how different student populations are separated and constructed as in need of different interventions in global ESD policy, and how a global ESD programme is locally adapted to students' lives and lifestyles in schools in different socio-economic contexts in Rwanda, Sweden, South Africa and Uganda. Ultimately, the thesis locates "problems" associated with such biopolitical

differentiation in ESD and elaborates on potential didactical responses to such problems.

Acknowledgments

Writing this doctoral thesis would not have been possible without the support of numerous individuals. To all those who have provided guidance, encouragement, and assistance, I extend my deepest gratitude.

First and foremost, I express profound gratitude to my supervisors, Associate Professor Benjamin Knutsson and Associate Professor Jonas Lindberg. Your guidance and unwavering support have been invaluable, and I could not have asked for a better and stronger duo to work with. Benjamin, your belief in my capabilities and your patience in addressing my questions and ideas have been indispensable. Your mentorship, not only in crafting scholarly articles but also in navigating the academic landscape, will forever leave a mark on my endeavours. Jonas, your close reading of all my texts and collaborative guidance, particularly during the writing of the Eco-Schools article, have been pivotal. Your expertise in conducting fieldwork in diverse settings has served as a guiding example. Your adept handling of logistical, political, and linguistic challenges during our time in Uganda and Rwanda has been truly inspiring.

Sofie Hellberg - the remaining member of our research project team - deserves my deepest appreciation. Your research on the biopolitics of water has been an inspiration that enriched this thesis. Our collaboration on the ESD for 2030 article and your astute critiques of various drafts have significantly contributed to the outcome.

I would also like to extend my gratitude to the individuals who facilitated the fieldwork, and in particular to the teachers, students, and school administrations for their warm welcome and cooperation during my visits to the schools. Special recognition goes to Faridah Nakato at CECOD Uganda, Diane Uwimpaye at ARCOS Rwanda, and Nomfundo Ndlowu at WESSA South Africa for their pivotal roles in facilitating school contacts and visits, which were essential for the completion of the fieldwork. I also thank Carsten Brinkmeyer at the Danish Outdoor Council and Pramod Kumar Sharma at the Foundation for Environmental Education for their assistance in connecting with key representatives in the Eco-Schools programme. A special acknowledgment also goes to Juby Govender for her excellent work in transcribing the interviews.

I am deeply indebted to Professor Soul Shava for graciously accepting the role of expert supervisor and affording me the opportunity to be a PhD research fellow

at the Department of Science and Technology Education, University of South Africa in Pretoria.

Contributions of great significance have been made by the discussants at my planning, mid, and final seminars: Associate Professor Annika Bergviken Rensfeldt, Professor Leif Östman, and Associate Professor Jonas Andreassen Lysgaard. Their constructive feedback has decisively guided the work forward.

Warm appreciation is extended to members of the KRUF research group, particularly Mattias Börjesson, Martin Harling, and Professor Olof Franck, who generously acted as main readers of the article drafts during various seminars.

I extend my gratitude to the Department of Pedagogical, Curricular and Professional Studies for offering an inspiring and conducive work environment. I am particularly thankful to current and previous assistant heads of department responsible for PhD education, including Angelika Kullberg, Sylvana Sofkova Hashemi, Anna Lyngfelt, Eva Nyberg, and Jonas Emanuelsson. Thank you for all the follow-up and facilitation of my progress along the way. Administrative staff, including Rebecca Hall Namanzi, Kristina Sörensen, and Anna-Nina Gillberg, have provided assistance with administrative matters, and Catherine MacHale Gunnarsson's suggestions regarding the language have been truly appreciated.

I am indebted to fellow PhD colleagues, Jonna Håkansson, Maggie O'Neil, Jessica Rahm, and Cathrine Sjölund Åhsberg for the enriching discussions and insightful feedback that have been invaluable over the years.

I would also like to extend my sincere appreciation to Ingrid Henning Loeb for her generous support during my master's thesis, which paved the way for my PhD education and the realization of this thesis.

Finally, I want to acknowledge the most important people in my life: my family. Managing two kids and house renovation while both parents are doctoral students during a global pandemic could pose challenges. However, with you it has been a breeze. To my daughters, Gun and Bodil, you always remind us about the important things in life and I apologize for having the most boring job in the world ("Why don't you work with something fun, like selling ice cream?"). To Jasmine, my wife and companion through life, thank you for your endless love, care, and encouragement, and for supporting me in applying for this PhD position, even though it meant a lot of time away from the family. You are my rock and my inspiration.

Brännö August 2023

Linus Bylund

Contents

1. INTRODUCTION	11
1.1 ESD implementation in an unequal world	12
1.2 Problematizing differentiated ESD biopolitically	14
1.3 Context of the thesis and the articles	15
1.4 Aim and research questions	17
1.4.1 Research questions	17
1.5 Terminological clarifications	19
1.6 Contribution of the thesis	21
1.7 Outline of the thesis	21
2. PREVIOUS RESEARCH	23
2.1 Different conceptualizations of differentiation	23
2.2 Global ESD implementation in ESE research	25
2.3 Biopolitical theory in ESE and sustainable development research	29
2.4 The thesis's contribution to previous research	33
3. THEORETICAL AND METHODOLOGICAL POINTS OF DEPARTURE	35
3.1 Foucauldian biopolitical theory	35
3.1.1 Biopolitics as a power that optimizes lives	36
3.1.2 (Neo)liberal biopolitics, agency, and responsible subjects	37
3.1.3 Hierarchization and differentiation between populations	39
3.1.4 Biopolitics in the thesis	40
3.2 A biopolitical approach to exploring ESD implementation	40
3.2.1 Government as a conduct of conduct	40
3.2.2 A methodological approach to studying ESD implementation	41
3.2.3 Exploring global ESD implementation biopolitically	45
4. METHODS USED IN THE ARTICLES	47
4.1 Methods in the conceptual articles	47
4.1.1 Method in Article 1	49
4.1.2 Method in Article 4	50
4.2 Methods in the empirical articles	51
4.2.1 Method in Article 2	52
4.2.2 Method in Article 3	53
4.3 Reflections on method and research ethics	57
4.3.1 Reflections on method	58

4.3.2 Reflections on ethical aspects of the research.....	60
5. SUMMARY OF THE ARTICLES	65
5.1 Article 1	65
5.2 Article 2	67
5.3 Article 3	70
5.4 Article 4	72
6. DISCUSSION	75
6.1 Didactics and biopolitical differentiation.....	75
6.2 The biopolitics of global ESD.....	78
6.2.1 Governing populations through ESD.....	78
6.2.2 Normalizing inequality through biopolitically differentiated ESD	81
6.3 A reflection on didactic alternatives to biopolitical differentiation	83
6.4 The studies limitations and implications for future research	87
6.4.1 Limitations of the study	87
6.4.2 Considerations for future research	90
SVENSK SAMMANFATTNING	93
REFERENCES	105
THE ARTICLES	115

1. Introduction

This thesis is concerned with exploring and problematizing educational differentiation between different groups. More specifically, the thesis explores and problematizes how rich and poor populations in various geographical contexts are differentiated between in the global implementation of education for sustainable development (ESD).

Differentiation within education and how education can be adapted to suit different students and groups of students have been widely discussed in educational research, and a large part of this literature has focused on how teaching can be adapted to support individual students' needs, talents, interests, cultural backgrounds, etc. (e.g. Lindner & Schwab, 2020; Tomlinson, 2000). In this thesis, however, it is not the individual perspective that is foregrounded but differentiation between different groups of students and how this differentiation is linked to inequality. In other words, the focus is on how different socio-economic groups are constructed as suitable for particular educational interventions and how teaching is adapted to the perceived needs, lifestyles, and futures of rich and poor populations.

Educational differentiation at group level is not in itself bad, since it can be a didactic tool for accommodating difference and diversity among students (e.g. Gay, 2002). At the same time, legitimate objections to educational differentiation can be raised concerning, for example, differentiation that prepares groups of students for different futures in accordance with their socio-economic background (see Ansalone, 2010; Oakes, 1986). In fact, I argue in this thesis that educational differentiation can become problematic and there is a risk of it leading to a reproduction of current unequal societal structures, if the current living conditions and lifestyles of populations are perceived as isolated and natural instead of relational and produced (see also Knutsson, 2020).

Although the problematization of differentiation between different socio-economic groups put forward in the thesis has relevance to all levels of scale, the thesis focuses mainly on global education and thus global inequality. For this purpose, the global implementation of ESD has been chosen as the object of study. This is firstly because ESD combines a common educational core,

developed in different global policies and programmes, with a high sensitivity to different local contexts. Hence, ESD is both global in its scope, but also locally adaptive and thus offers the opportunity to compare how global educational programmes are adapted to the living conditions and lifestyles of populations in very different geographical and socio-economic contexts. Secondly, there are few, if any, subject-matter areas in education that address such urgent content as ESD and, importantly, that are so intimately connected to global inequalities. Climate change, the eradication of life habitats, and the mass extinction of species are themes that will most certainly have an impact on all young people throughout their lives. These problems are also highly connected to global inequalities with detrimental, although differentiated, effects on human as well as non-human populations.

This chapter sets the stage for the thesis and is organized as follows. The first section situates global ESD implementation in the context of an unequal world, while the second section introduces the theoretical perspective of the thesis. The third section presents the context of the thesis as being part of a larger research project, followed by a fourth section with the aim and research questions. In the fifth section, some terminological clarifications are presented followed by a sixth section describing the contribution of the thesis. The final section then presents the outline of the thesis.

1.1 ESD implementation in an unequal world

With the 2030 agenda for sustainable development and the sustainable development goals (SDGs), the United Nations (UN) addresses urgent global sustainability issues. These include climate change, loss of biodiversity, poverty, lack of access to basic education, and inequality. In this context, ESD is put forth as pivotal, as the UN recognizes ESD as “a key enabler of all the other SDGs” (UNESCO, 2019, p. 1). The worldwide implementation of ESD is thus seen as an essential part of the UN’s work to reach the goal of a more just and sustainable world.

UNESCO has been the lead UN agency in implementing ESD globally and ESD is UNESCO’s education sector’s main response to sustainability challenges. Their role is to produce and share knowledge, provide policy guidance and technical support to member states, and assist in implementing projects and ESD programmes in cooperation with local stakeholders (UNESCO, 2019). In this work, UNESCO has launched three global initiatives on ESD during the last two

decades: *the Decade of ESD* (2005-2014), *the Global action programme on ESD* (2015-2019), and the ongoing initiative *ESD for 2030*. The current programme, launched in May 2021, builds on the previous initiatives and aims “to build a more just and sustainable world through strengthening ESD and contributing to the achievement of the 17 SDGs” (UNESCO, 2019, Annex II, p. 7). *ESD for 2030* thus relates to all SDGs but has a particular focus on SDG 4, which aims to ensure “inclusive and equitable quality education and promote lifelong learning opportunities for all” (UN, 2023). This rhetoric of an equal and inclusive education for all is significant for all the global ESD initiatives and for other texts within the vast plethora of documents from UNESCO, portraying ESD as a global project that unites humanity in a common endeavour for a better and more just future (e.g. UN, 2018; UNESCO, 2014, 2016, 2019, 2020).

This emphasis on inclusion, equity, and equality in ESD is not surprising given that inequality and climate change are put forth by the UN as defining issues of our time (UN, 2022a, 2022b). It is also hard to question the nobility of UNESCO’s ambitions for a unifying, just and equitable ESD, especially since both the causes and effects of the climate crises and environmental degradation are closely connected to inequality (Boyce, 1994; Green & Healy, 2022; Hornborg, 2021; Islam & Winkel, 2017; Wiedmann et al., 2020; see also OXFAM, 2019). These matters are urgent, and education arguably has a role to play in the transition to a sustainable future. However, given the abysmal inequalities in income, health, and life-chances within and between different countries and populations (Milanović, 2017, 2019; Therborn, 2013), questions can be raised concerning the possibility of unifying humanity and including everyone on equal terms through ESD. For instance: is it possible to promote the same goals and responsibilities for a sustainable future in ESD regardless of participants’ incomes or lifestyles? Is ESD implemented in a unifying and equitable manner, or is it rather differentiated and adjusted in ways that assign different tasks, responsibilities, and lifestyles to rich and poor? These are pertinent questions, since if the latter is the case, there is a risk that differentiated ESD instead of unifying humanity, feeds into and reproduces the global inequality and life-chance gap existing between rich and poor populations.

These concerns are taken into consideration in this thesis since it, on the one hand, seems reasonable to adapt ESD to different local circumstances, thereby avoiding a “one-size-fits-all” approach that may carry a Western, white, middle-class bias. On the other hand, it seems problematic to unify humanity through differentiation, and, as the questions above indicate, adaptations to local

circumstances in a highly unequal world might translate as adaptations that reproduce that very inequality.

1.2 Problematizing differentiated ESD biopolitically

In the endeavour to explore educational differentiation between different populations in global ESD, the thesis employs Foucauldian biopolitical theory. In the Foucauldian tradition, biopolitics is concerned with the government of life at the level of populations. This involves forming populations by grouping people together in accordance with different characteristics, and governing these populations in order to achieve certain ends and rationalities (see Chapter 3). Biopolitics thus constructs populations according to more or less solid knowledge and assumptions about the lives and lifestyles of the populations, and governs them through different interventions, adapted to this knowledge and these assumptions. Thus, in this thesis, biopolitical theory enables an analysis of how rich and poor student populations are constructed and separated, and how the lives and lifestyles of these populations are governed in different ways through ESD interventions.

A central argument in the thesis is that educational differentiation can be seen as a didactic tool that encompasses a tension between difference and inequality (see Article 1) and that educational differentiation at group level, wittingly or unwittingly, encompasses a biopolitical dimension¹. If ESD is adapted to different student populations based on some perceptions about the students' lives and lifestyles, ESD can be seen to fall into a *biopolitical differentiation*. Such differentiation might carry the risk of biopolitically separating student populations by governing them in entirely different ways, and possibly assigning different responsibilities, subjectivities, and lifestyles to rich and poor, thus feeding into existing patterns of inequality.

In this way, the thesis connects didactics, educational differentiation, inequality, and biopolitics by problematizing how didactical decisions on how to differentiate education in accordance with the needs of particular groups may reproduce unequal biopolitical patterns. How such biopolitical differentiation plays out in the global implementation of ESD, and what alternatives there are to such

¹ For this purpose, the thesis adopts Göran Therborn's multidimensional theory of inequality (2012, 2013), which includes vital inequality, existential inequality, and resource inequality, and which elaborates on the difference between a difference and an inequality (see Article 1).

differentiation, are therefore important to consider. These concerns are explored in this thesis and in an ongoing research project on the biopolitics of ESD, which brings us to the next section.

1.3 Context of the thesis and the articles

This section contextualizes the thesis, first in relation to the larger research project of which it is part, and then in relation to the didactical research tradition in which it is written. The section ends by describing how these contexts influence the articles and how the articles are related to each other. Notably, ESD is here seen as a delimited subject-matter area that is implemented in schools and is the object of empirical investigation, while environmental and sustainability education (ESE) denotes the wider research field (see Section 1.5 below).

The argument that global ESD implementation governs rich and poor populations in entirely different ways, which are intimately tied up with a biopolitical hierarchy of life, was first put forward in two articles by Hellberg and Knutsson (2018a, 2018b; see also Knutsson, 2013). Although Hellberg and Knutsson make a convincing argument about biopolitically differentiated ESD, they contend that their arguments need to be qualified through empirical research in different local settings in both high- and low-income contexts. This call to empirically investigate how global ESD is implemented among rich and poor populations then developed into a research project (Bylund, 2021, 2023; Bylund & Knutsson, 2020; Bylund, Hellberg & Knutsson, 2022; Knutsson, 2020, 2021), funded by the Swedish Research Council (Vetenskapsrådet, 2018-04029), within which this dissertation is written.

The thesis follows Hellberg and Knutsson's call for empirical research on ESD implementation in multiple locations and adds to the project by focusing on the didactical aspects of biopolitically differentiated ESD. In the empirical parts of the thesis, this means that global ESD implementation is explored both in policy, through the latest UNESCO framework for implementing ESD (Article 2), and in practice, through exploring the implementation in schools in different locations that participate in a global ESD programme (Article 3). In the conceptual parts (Articles 1 and 4), it means problematizing educational differentiation didactically by drawing on biopolitical theory. Biopolitical theory is also complemented with other theoretical and philosophical perspectives, ranging from sociological and philosophical research on inequality and ethics to literature within educational

philosophy and theory. This does not, however, mean that the thesis is a project within educational theory and philosophy; rather, it is a didactical project.

The thesis follows the Nordic/German tradition of “didaktik”, which ranges from learning theories to curriculum theory, underpinned by (educational) philosophy (e.g. Englund, 2004). The main focus of the thesis - how different populations are approached in ESD and how subject matter and local pedagogical practices are adapted to suit perceived needs of students - is in line with some of the general didactic tradition’s main concerns. Klafki (1995), for instance, focuses on these aspects in his “general didactic questions” used to analyse how learning content and teaching can be adapted to students’ lives and futures. He asks: “What significance does the content in question or the experience, knowledge, ability or skill to be acquired through this topic already possess in the minds of the children in my class” and “What constitutes the topic’s significance for the children’s future” (Klafki, 1995, pp. 23-24). Another example is Wickman et al. (2018), who contends that didactical decisions on suitable content and teaching methods must “always be made with a certain group of students in mind” (p. 241, my translation). Hence, in the didactic tradition it is important to consider how teaching and content can be adapted to groups of students and thus how different groups of students can be approached differently. Such differentiation is, as mentioned above, a way of dealing with diversity among student groups, but in this thesis, it is problematized and argued to be a tool that always carries a risk of leading to a biopolitical (re)production of inequality and should therefore be used with caution.

The thesis thus engages with educational differentiation by problematizing biopolitical differentiation in global ESD implementation from a didactical perspective. This is done through the four articles of the compilation thesis in the following way. The first article establishes educational differentiation as a didactic problem that encompasses a field of tension between difference and inequality. The second article connects the problem of differentiation more directly to ESD by exploring biopolitical differentiation in ESD in global policy. The third article then empirically explores how differentiation is played out in the local implementation of ESD. In relation to the problematics established in the previous articles, the fourth article engages with this problematic by elaborating on potential didactical responses to biopolitical differentiation in ESD.

1.4 Aim and research questions

Drawing on biopolitical theory, the aim of this thesis is to explore and problematize differentiation between rich and poor populations in the global implementation of education for sustainable development from a didactical perspective. The research endeavour involves engagement with educational differentiation in ESD through both theoretical analysis and empirical research.

1.4.1 Research questions

Starting from the aim and research endeavour above, the thesis explores and problematizes educational differentiation in four articles, where each article addresses a specific research question²:

Research question 1

How can didactic adaptation of teaching and subject matter to different student populations be understood in relation to government, differentiation, and inequality?

Article 1: Bylund, L. & Knutsson, B. (2020). The Who? Didactics, differentiation and the biopolitics of inequality. *Utbildning & Demokrati – Tidskrift för didaktik och utbildningspolitik*, 29(3).

The article problematizes educational differentiation by engaging critically with the didactic *who?*-question. It is argued that the *who?*-question encompasses a tension between the recognition of difference and (re)production of inequality, and that it can be understood as a biopolitical governing technique for constructing various student populations as appropriate for different kinds of education. The article thus establishes a didactical problem in the intersection between didactics, differentiation, and biopolitics, and it takes ESD as an example of this problematic. By discussing when differentiation can become problematic and how the tension between difference and inequality can be made visible, the article also forms a foundation for the other articles in the thesis.

Research question 2

² The way in which the research questions and articles are presented in this section is inspired by Tryggvason (2018).

How does global ESD policy handle the different living conditions and lifestyles of rich and poor populations?

Article 2: Bylund, L., Hellberg, S., & Knutsson, B. (2022). ‘We must urgently learn to live differently’: The biopolitics of ESD for 2030. *Environmental Education Research*, 28(1).

The article explores biopolitical elements of the present UNESCO framework for implementing ESD globally – *ESD for 2030* – through a biopolitical reading of key documents. The analysis focuses on how different human populations are distinguished between and which biopolitical techniques are proposed in the framework. The analysis points to a biopolitical differentiation in the framework, where rich and poor populations are assumed to be in need of different educational interventions adapted to their socio-economic and geographical contexts. The article then goes on to briefly indicate what an affirmative alternative to differentiated ESD might look like by turning to Foucauldian theory on ethics and self-formation.

Research question 3

How is global ESD implemented in relation to rich and poor student populations and what biopolitical rationalities and techniques are put into play in these processes?

Article 3: Bylund, L., Knutsson, B., & Lindberg, J. (2023). Apping lunch and earning keep: Eco-schooling in an unequal world. (*Submitted article manuscript*)

The article explores how the world’s largest ESD programme - *Eco-Schools*³ - is implemented in different socio-economic and geographical contexts. The data consists of interviews and observations from 31 eco-schools in Rwanda, South-Africa, Sweden, and Uganda. The paper demonstrates how the Eco-Schools programme is adapted to the lifestyles and living conditions of rich and poor populations. This is done through a biopolitical analysis of how lives and problems

³ Eco-Schools is the official name of the programme, and refers, in this thesis, to the programme as such. When individual schools enrolled in the programme are referred to, eco-schools are used, i.e. using lower case.

are perceived; how the Eco-Schools themes of food and waste are implemented; and how the local community is addressed in different eco-schools.

Research question 4

What alternative didactical responses are there to biopolitical differentiation in ESD?

Article 4: Bylund, L. (2023). Education for sustainable development among rich and poor: didactical responses to biopolitical differentiation. *Environmental Education Research (Published ahead of print)*

The concluding article of the dissertation sums up some of the findings within the research project by identifying three “problems” associated with biopolitical differentiation in global ESD implementation. The article then engages critically with these “problems” by elaborating on three didactic responses that draw on Judith Butler’s writing on vulnerability and mourning, Jacques Rancière’s theories of equality, and Michel Foucault’s writing on ethics and self-formation.

1.5 Terminological clarifications

Before proceeding, a few terminological clarifications on how key terms are used and understood in the thesis might be necessary:

Didactics and subject didactics

The term didactics is used in different ways in different research traditions⁴ and country contexts, ranging from a science and theory about education, teaching, and learning “in all circumstances and in all forms”, to more classroom-oriented theory about the practice of teaching (Gundem, 2000, pp. 236-237). Thus, there is not one, but “several didactics” (ibid.). One such delimitation is between general didactics and subject didactics, and how lines are drawn between these two concepts has been the subject of scholarly debates (e.g. Brante, 2016; Kasanen & Meri, 1999)⁵. This thesis is written as part of a PhD within subject didactics, but

⁴ Gundem (2000, pp. 242-244) gives several examples of traditions, such as “human science didactics”, “learning and teaching based theory didactics” and “critical didactics”.

⁵ The term general subject didactics has also gained increased attention in recent years (e.g. Wollmer, 2021).

in the articles the term “didactics” or “didaktik” is used. This does not, however, mean that the thesis is only oriented towards general didactics, since both general didactics and subject didactics share the premise that teaching always relates to a specific content (Andrée & Bladh, 2021). ESD is not a school subject or an academic discipline on its own, but is interdisciplinary⁶ with, in a broad sense, common content. Thus, ESD could be understood within the frame of subject didactics related to specific content, but a more process-oriented understanding of ESD would lean more towards general didactic questions. However, I do not find the debate on the difference between general didactics and subject didactics to be particularly productive for my purpose, and the thesis thus draws on and relates to theories that could be understood as general didactics but include subject-matter dimensions related to environmental and sustainability content.

Education for sustainable development (ESD)

Although the term ESD has been widely criticized and debated since it was adopted and mainstreamed by UNESCO (see González-Gaudiano, 2005; Gough, 2013; Kopnina, 2012) the thesis does not go into debates concerning whether ESD, environmental education (EE), or any particular term is preferable to use over the others. Instead, ESD is here understood as an empirical phenomenon that can be subject to investigation. Hence, in this thesis, ESD refers to educational policies, practices, programmes, and materials claiming to foster sustainable development by promoting certain subject matter content, teaching strategies, skills, and pedagogic ideas.

Environmental and Sustainability Education (ESE)

ESE refers to the academic field of research that explores the relationship between education, learning, and environment and sustainability issues, and that has its own societies, journals, conferences, and special interest groups. Thus, in this thesis, ESE denotes a field of research, whilst ESD refers to an object of (empirical) study.

Implementation of ESD

The term implementation is used throughout the thesis. To state that ESD is “implemented” can connote that ideas are spread seamlessly and adopted by different stakeholders without being changed or resisted. The term has therefore been criticized for being applied uncritically and it has been proposed that policy,

⁶ At my department, for example, ESE research is conducted both within the natural sciences and the social sciences.

programmes, and ideas are rather “enacted”. In the field of education policy, “enactment” refers to an understanding of policies as interpreted and “translated” by diverse actors in schools rather than implemented (e.g. Ball, Maguire & Braun, 2012). Although the critique is valid, and enactment might be a better way of describing these processes, the term implementation is used in the thesis since enactment is so intimately associated with the field of educational policy research. This does not, however, mean that implementation should be understood as being straightforward, but it is here rather understood as an everyday word describing the process of adapting ESD practices to the ideas formulated in different policies and programmes.

1.6 Contribution of the thesis

The thesis contributes to previous research in mainly three ways. *First*, it contributes to previous didactical and pedagogical research on differentiation at group level by adding a biopolitical dimension, and by conceptualizing differentiation and the didactic *who?*-question within a field of tension between difference and inequality. *Second*, the thesis contributes empirically to discussions in the field of ESE on whether ESD is implemented in a homogenizing way or rather differentiated and adapted to local contexts. By exploring differentiation in local ESD implementation through a biopolitical lens, the thesis opens the way for a discussion on whether ESD implementation follows a global pattern of inequality. *Third*, the thesis contributes to previous research concerned with the biopolitics of ESD (Hellberg & Knutsson, 2018a, 2018b; Knutsson, 2013, 2020, 2021) by empirically exploring the problematics put forth in this literature at policy level and by comparing the implementation of ESD in different socio-economical and geographical contexts in countries at different economic development levels. Furthermore, the thesis elaborates on possible didactical responses to the problematics put forward in this research.

1.7 Outline of the thesis

The compilation thesis is composed of four articles and a “kappa” with six chapters which frames, summarizes, and comments on the articles. The kappa is organized as follows: After this introductory chapter, Chapter 2 presents previous research. Chapters 3 and 4 provide the methodology of the thesis, where Chapter 3 introduces Foucauldian biopolitical theory and the methodological points of

departure of the thesis, and Chapter 4 presents the specific methods used in each study/article. Chapter 5 offers summaries of the four articles, while Chapter 6 discusses the findings in relation to previous didactical and biopolitical scholarship.

2. Previous research

This section positions the thesis in relation to previous research, primarily ESE research but also other related fields. There are mainly three strands of research that the thesis aims to communicate with and contribute to. The first section presents literature on how differentiation is conceptualized within educational and didactical research by drawing on recent review articles. The second section introduces previous ESE research on global ESD implementation, and the third section presents previous biopolitical research on how different populations are governed through notions of (education for) sustainable development.

2.1 Different conceptualizations of differentiation

This section offers a brief overview of various ways in which “differentiation” is applied within educational and didactical research. It draws on recent review articles on different aspects of differentiation.

The term differentiation is widely used in educational and didactical research, but the use of the term is highly debated since it is applied and conceptualized in different ways in different research fields and traditions. One of the most common ways of using the term builds on Carol Ann Tomlinson’s (2003) work, which defines differentiation as:

...an approach to teaching in which teachers proactively modify curricula, teaching methods, resources, learning activities, and student products to address the diverse needs of individual students and small groups of students to maximize the learning opportunity for each student in a classroom. (Tomlinson et al., 2003, p. 120)

This classroom-centred definition, focusing on teachers’ didactical decisions about suitable material and teaching methods to meet the needs of individual students, is, for instance, employed in two influential review articles on differentiation in education published in recent years (Duenk et al., 2018; Graham et al., 2021). In these articles, it is argued that an increasing array of loosely defined concepts and beliefs are described as differentiation (see also, Bondie et al., 2019) and the term

is hence depicted as somewhat “fuzzy” (Duenk et al., 2018, p. 32). This “fuzziness” is described as problematic, and in the review articles, it is argued that there is a need to come up with a clear conceptualization. Graham et al. (2021), for example, suggest that differentiation should be understood as adapting teaching and learning materials to meet the needs of diverse learners in heterogenous classrooms. They argue that other ways of understanding the concept – such as “structural differentiation” covering differentiation on a school level or curricular level – are full of inconsistencies and constitute “misinterpretations” of differentiation (p. 162). Thus, the individual, classroom perspective is clearly advocated by the authors and this view has a strong position within the literature on differentiation. However, another recent review article, by Eikeland and Ohna (2022), offers a wider and more inclusive perspective on differentiation. In the article, the authors provide an overview of how the concept actually appears in international educational and didactical research, and their findings suggest four different ways of conceptualizing differentiation: as individualization; as adaptations to specific groups; as adaptation within diverse classrooms; and as differentiation from a system perspective. As mentioned in the introduction, this thesis takes an interest in differentiation at group level, and Eikeland and Ohna’s categories pertaining to group and system level are therefore of interest in this context.

In their analysis of studies that conceptualize differentiation in relation to groups, Eikeland and Ohna (2022) argue that there is a tension between papers addressing specific groups of learners and papers that focus on ability grouping in general. The first set of papers, focused on specific groups, present arguments that support grouping of students, since it is considered as “a prerequisite to meet their common educational needs” (Eikeland & Ohna, 2022, p. 164). This set of papers includes studies on gifted and talented students who are argued to have shared needs and common preferences when it comes to teaching and learning, which necessitates differentiation in the form of more challenging learning materials and activities (e.g. Laine & Tirri, 2016; Tiesto, 2003). Other examples are papers that put forward arguments for differentiation that adapts teaching to the specific needs of learners with English as a second language. It is argued that differentiation in relation to this group of students should be based on multi-cultural education and social justice, and consider the interests, levels of readiness, and proficiency in English of the learners (e.g. Elsbree et al., 2014). The second set of papers – focused on ability grouping in general – are more critical to grouping students together according to perceived differences in ability, and raise concerns about social justice and individual consequences of such grouping (Eikeland & Ohna,

2022, p. 164). These range from concerns that ability grouping has detrimental effects on the school well-being of “weak” students (Belfi et al., 2012), to concerns that curriculum differentiation and earlier placement in differentiated educational programmes increase the achievement gap between students from different social backgrounds (e.g. Schofield, 2010). Thus, in Eikeland and Ohna’s review, both positive and negative effects of differentiation at group level can be found (see also Article 1 of this thesis).

In addition to the group level, differentiation at the system/policy level is also of interest in the context of this thesis. Eikeland and Ohna (2022) contend that only two out of the 28 articles included in their review address contextual conditions at a system level. They warn that “without taking contextual, policy, or system-oriented factors into account” in educational and didactical research, the risk is that an instrumental understanding of differentiation is developed; an understanding of differentiation reduced to a tool for teaching (p. 167). Instead of such a narrow understanding, Eikeland and Ohna ask whether discussions around differentiation should continue to be preoccupied with differentiated teaching at the classroom level, arguing as follows:

Teaching and learning do not co-exist in a vacuum. Instead, conditions that evolve and decisions that are made at higher levels are important factors in determining what can be accomplished in terms of teaching and learning at the classroom level, and these should therefore be included to a greater degree in the concept of differentiation. (Eikeland & Ohna, 2022, p. 167)

This way of conceptualizing differentiation, to include factors pertaining to “a higher level”, is adopted in this thesis. This means that, in the thesis, differentiation is not primarily understood as belonging to the level of individuals in the classroom, and differentiation is therefore explored and problematized both in relation to ESD policy and in relation to different populations of students.

2.2 Global ESD implementation in ESE research

This section presents previous ESE research on ESD implementation. It is noteworthy that most of the studies within the field of ESE have been conducted in single national contexts but that there are examples of literature that critically explores and problematizes *global* ESD implementation, and it is this literature that is in focus here. More specifically, the section closes in on three different positions

within the literature, discussing global implementation of ESD as: (i) contributing to global homogenizing tendencies; (ii) heterogenous and characterized by contingency, local re-articulations, and spaces of contestation; or (iii) following a biopolitical pattern of distinction between different forms of life.

Within the first position, several critically oriented scholars have voiced concerns about the increased focus on the economic aspect of sustainable development, which frames ESD within neoliberal agendas. These studies include discussions on how ideas of neoliberalization lead to the promotion of economic growth and market solutions to environmental problems (e.g. Hursh, Henderson & Greenwood, 2015; Sumner, 2008). This also include studies that describe concerns about how the gradual conversion of environmental education into ESD follows neoliberal rationalities and has meant a turn towards more anthropocentrically biased education (Kopnina, 2012; Kopnina & Cherniak, 2016) and the “universalizing” of Western thought (Gough, 2003). The neoliberal tendencies discussed in this literature are often argued to involve homogenization of education systems, and several scholars claim that neoliberal agendas seek to implement a one-size-fits-all programme in ESD, with particular pedagogies, teaching methods, and subject content. The literature is critical of such homogenizing tendencies and argues instead for alternative critical approaches, often rooted in local contexts. Jickling and Wals (2008), for example, argue that a neoliberal globalizing agenda promoted by international organizations has influenced educational policy at a “lightning speed” (p. 4), which has altered the didactics of environmental and sustainability education in line with “instrumental and deterministic tendencies that favour transmissive arrangements for teaching and learning over more transformative ones” (p. 18). In a similar way, Huckle and Wals (2015) argue that the global ESD initiative, *the UN Decade of Education for Sustainable Development (DESD)*, avoided challenging neoliberalism as a hegemonic force, as well as globalization as a homogenizing force. Through their analysis of key documents of the DESD, the authors stress that there is too little attention paid to power within the texts and that the framework fails to recognize the ways in which “neoliberalism has made the adoption of sustainable behaviours and lifestyles less likely” (p. 492). Thus, instead of promoting a genuinely critical and transformative ESD, the discourse within the DESD endorses shifts in values and lifestyles within prevailing society, which is argued to contribute to “business-as-usual in the end” (Huckle & Wals, 2015, p. 502). In another paper, McKenzie (2012) also points to ESD as a homogenizing force that adapts to a neoliberal agenda following the associated cultural assumptions of the West. Instead of such

homogenization based on “global common sense”, McKenzie argues for an education built on “local good sense”, which has the potential for achieving a policy and didactic practice driven by local histories and diverse possible futures. Such resistance to neoliberal tendencies in ESD is also promoted by Martínez-Rodríguez et al. (2018), who argue that neoliberal educational rationality typically promotes curricular conformity. Instead, the authors discuss how other, holistic, local, and humanistic approaches to ESD have the potential to serve as “spaces of resistance” against neoliberal educational rationality – taking a centre for ecoliteracy as a rare example. The final example of studies concerned with neoliberal homogenizing tendencies in global ESD is Tikly’s (2019) study on regional ESD agendas in Africa. Tikly argues that these agendas (Agenda 2063 and the Continental Education Strategy for Africa 2015) do not go far enough in identifying and resisting unsustainable development and do not acknowledge “the extent to which education systems have been complicit in reproducing the interests of colonial and postcolonial elites” (p. 235). Thus, the regional agendas are not, according to Tikly, able to resist colonial and neoliberal global educational agendas.

Now we turn to the second position within the literature, where we find scholars emphasizing that local conditions and local policy influence the implementation of ESD, and that contingency and local re-articulation have the potential to counter global educational homogenization. In two articles, Bengtsson and Östman (2013, 2016) have elaborated an alternative theoretical outlook on globalization in relation to ESD that contrasts with the above-mentioned position. They argue that some of the studies describing ESD as a tool for neoliberalist globalization and curricular conformity take their point of departure in logics of determination and correspondence, with an understanding of globalization “as an a priori determined phenomenon” (Bengtsson & Östman, 2016, p. 3). According to Bengtsson and Östman, research adopting such perspectives commonly applies an analysis privileging sameness and signs of reproduction and thus overlooks the contextual or the particular. Instead, they advocate a perspective in which ESD is given multiple meanings, and frames ESD implementation as generating different conflicts in different contexts (Bengtsson & Östman, 2013). Such a perspective is argued to enable an alternative understanding of ESD that acknowledges the contingency of ESD implementation as it is rearticulated in different national settings. The contingency of this local re-articulation is also empirically explored by Bengtsson and Östman (2016) through an investigation of articulations of ESD and sustainable development in Vietnamese and Thai policymaking (see also Bengtsson, 2016). In sum, Bengtsson and Östman thus offer another perspective

on global ESD implementation, which is argued to be more open and sensitive to local circumstances. Such a perspective, emphasizing local differences and re-articulations in ESD implementation between and within different national contexts, is also found in Feinstein et al. (2013), who explore educational governance of ESD in Brazil, South Africa, and the USA. Although they do not engage with the discussion between the different positions mentioned above, they contend that ESD governance is “polycentric” and that national, regional, and local curricula, together with local resource constraints and involvement of local organizations, affect the implementation of ESD to a high degree. How ESD interventions are ultimately rolled out locally, (i.e. what is being taught and how) is thus argued to be the product of a place-specific and historically contingent balance between national government, regional governments, and NGOs (Feinstein et al., 2013).

Thirdly, and finally, we find a theoretical position developed by Hellberg and Knutsson (2018a, 2018b). In their framework for exploring global ESD implementation from a biopolitical perspective, they argue that both positions within the literature accounted for above have valid points, but that biopolitical theory can help in illuminating new aspects of the discussion. While sharing the first position’s concern with global neoliberal governance in ESD, Hellberg and Knutsson make the claim that homogenization has never been the reality, let alone the goal, in global ESD implementation. Instead, it is argued that global neoliberal governance in the field of ESD has strong differentiating effects. In relation to the second position (i.e. Bengtsson & Östman, 2013, 2016), Hellberg and Knutsson recognize that geographical, cultural, and socio-economic context is important, but put forward the hypothesis that there are distinct global *patterns* in how ESD is implemented that go beyond local variation. They thus suggest that ESD implementation, instead of being characterized by homogenization or local contingency, rather follows a pattern where rich and poor are educated to become sustainable in very different ways (Hellberg & Knutsson, 2018a). The theoretical framework developed in the articles stresses the need for research that explores ESD implementation from a biopolitical perspective, and the framework has been applied in two previous ESE studies conducted by Knutsson (2020, 2021). These studies demonstrate how patterns of distinction between rich and poor populations are a common feature in globally awarded ESD initiatives and in South African ESD implementation. (These studies are described in more detail in the next section.)

The three sets of literature within ESE presented in this section represent different positions in discussions concerning whether global ESD is characterized by homogenization or adaptation to the circumstances of different local contexts. The perspective adopted in this thesis, as explained above, is in line with the third theoretical position as developed by Hellberg and Knutsson (2018b). Hence, local adaptation is of importance, although the perspective embraced here involves the need to explore whether and how these adaptations and rearticulations of ESD follow a biopolitical global pattern of inequality.

2.3 Biopolitical theory in ESE and sustainable development research

This section focuses on literature within ESE and other related fields that adopts biopolitical theory to explore how different populations are governed through the notion of (education for) sustainable development.

To start with, there is a large body of literature adopting a Foucauldian theoretical framework within both Swedish (e.g. Dahlbeck, 2014; Hillbur, Ideland & Malmberg, 2016; Ideland & Malmberg, 2015) and international (e.g. Ferreira, 2009, 2019; Fletcher, 2015; Lloro-Bidart & Semenko, 2017; Pierce, 2015) ESE research. These studies make important contributions to the field and shed light on how power relations, environmental subjectivities, and the conduct of environmental conduct plays out in the context of environmental and sustainability education. Most of these studies apply Foucauldian governmentality theory, often combined with other Foucauldian theoretical concepts, such as pastoral power (e.g. Ideland & Malmberg, 2015), genealogy (e.g. Dahlbeck, 2014), or ethics of self-care (e.g. Lloro-Bidart & Semenko, 2017). Although the term biopolitics is mentioned briefly in a number of studies within the field of ESE (e.g. Gough & Adsit-Morris, 2020; Hursh, Henderson & Greenwood, 2015; Martínez-Rodríguez et al., 2018; Pierce, 2015), there are few studies employing biopolitical theory. Three notable exceptions are, however, to be found. A biopolitical lens is used by Gough (2017), who traces a shift in international and Australian environmental policy discourse, from an ecological form of biopolitics dominating early policy documents to a technocratic and neoliberal version of biopolitics in more recent documents. Shava (2011) also applies a biopolitical perspective as one of four primary aspects in his analysis of power/knowledge relations in natural resource governance in a South African community, and Little (2014) employs biopolitical theory to explore the “greening” of American prisons through

education. These three studies constitute examples of how biopolitical theory can inform ESE research by exploring the governing of lives, lifestyles, and subjectivities at the level of populations.

Thus, although there are examples of previous biopolitical research in ESE, there are no studies focusing on how biopolitical distinctions are made *between different* populations in ESD (except for the studies mentioned above that are included in the research project in which this dissertation is written). There is, however, literature in other fields of research that takes an interest in how *either rich or poor* populations are biopolitically governed through sustainable development.

If we start with studies on how poor populations are governed through sustainable development, seminal work has been carried out by Mark Duffield, who explores biopolitics and liberal ways of government in international aid (e.g. Duffield, 2007, 2010). Duffield argues that within international aid, there has been a shift in the focus of security from states to the people living within them. Instead of state-based models, development is now understood biopolitically, that is, in terms of how life is best supported in line with ideas of how different populations are to live their lives. In this context, Duffield claims that sustainable development functions as a biopolitical regime that generically divides humankind into developed and underdeveloped life, aimed at governing and “containing” populations that are “surplus” to the economic system (Duffield, 2007). Fuelled by environmental concerns, poor populations are expected to adopt self-reliant lifestyles in order to meet their basic needs, lifestyles that are very different from the mass-consumer lifestyles of richer populations. Duffield’s argument has been further developed by Julian Reid and Brad Evans (Evans & Reid, 2014; Reid, 2012, 2013) in their work on neoliberal governance of the resilient subject. They argue that as the previous notion of development has gradually been replaced by sustainable development in international policy documents, there has been a corresponding shift from security to *resilience*, advocating for individuals, populations, and communities to become resilient to changes. The “resilient subject” is argued to live in a world marked by contingency and must therefore constantly struggle to accommodate itself to different threats since it does not have the possibility of reaching a state of security nor of changing the world in which it lives. Instead, the resilient subject must adapt to and accept the disastrousness of the world.

Before we turn to the biopolitical literature exploring how rich populations are targeted by sustainable development, it is worth noticing that there are several non-

biopolitical studies concerned with how local ESD implementation in the Nordic countries constructs environmental subjectivities built on consumption (e.g. Sjögren, 2019), and how unequal ecological exchange and relations between societies are overlooked in these processes (e.g. Eriksen, 2018; Knutsson, 2018; Sæther, 2017). However, when we zoom in on biopolitical studies exploring the formation of sustainable subjects in the global north, there are few studies to be found. One example is Skoglund's (2014) study that builds on Reid and Evans' work on resilient subjects in the Global South but relocates the interest to the Global North. By studying two social experiments on how families can limit their climate footprint through climate dieting, Skoglund shows how the "overdeveloped subject" in the Global North can be influenced to adopt self-regulating subjectivities and "revalue life" in line with ideas of sustainable ways of living. Adopting such a subjectivity involves becoming a facilitator of resilience who actively spreads a certain sustainable lifestyle to others. In another study, Skoglund and Börjesson (2014) explore how different age groups of children are made competent by different actors such as NGOs, and how the "Nordic child" is guided to govern herself/himself and others in the reconfiguration of biopolitics with ecological reason. The study draws on different materials provided by these actors and shows how "pre-schoolers" were depicted as having close bonds to nature and as models for how social and cultural life is supposed to be lived, while "schoolers" were treated as beings that should be respected for their mental and social capabilities (p. 441). The last category, consisting of teenagers, was addressed through their own abilities to politically form a sustainable world. Ultimately the authors conclude that "pedagogic expertise, in conjunction with sustainability, is mobilized" in what they call "juvenocratic spaces", in which "youths are obliged to foster sustainable consumption and ways of living beyond territorial borders" (p. 431).

The literature above thus explores how sustainable development functions as a biopolitical governing device that forms environmental subjects and subjectivities in relation to *either* rich or poor populations and is thus of importance in the context of this thesis. However, the thesis is concerned with comparing how rich and poor populations are addressed in ESD implementation and for this purpose, the few studies that explore biopolitical separation *between* rich and poor populations by *comparing* how different populations are being addressed in a sustainable development regime, are of particular importance. Such comparisons have been conducted by Sofie Hellberg (2014, 2017, 2018, 2020) in her studies of how rich and poor populations are targeted in different ways in water service

delivery in South Africa. In this work, Hellberg shows that the way water service delivery is carried out in a South African municipality has strong differentiating effects, as it targets different populations as appropriate for certain technological solutions. This has effects on the ways in which these populations perceive themselves and their lives. Water governance in this context is thus productive of different lifestyles and how people understand their place in the social hierarchy. Hellberg argues that such differentiated system of managing water service delivery can work to (re)produce social hierarchies and further entrench distinctions between different forms of life (Hellberg, 2014, 2017). Hellberg's work thus shows how biopolitical theory can be applied to explore how different populations are governed and how such government can work to produce differentiated subjectivities and lifestyles.

Transporting this biopolitical approach to the field of ESE, Knutsson has conducted two empirical studies (2020, 2021) that explore how ESD is adapted to "suit" the perceived living conditions of different populations. The first article explores how ESD programmes in South Africa handle the huge inequality within the country and shows how local interventions are adjusted in line with the perceived needs of different socio-economic groups of students. This adaptation to the perceived living conditions and lifestyles of students allows for different ways of governing rich and poor. Knutsson (2020) contends that some populations are to become sustainable within their local "reality" of a mass-consumption society, while others are to become sustainable within their "reality" of struggles over basic needs. In this way, inequality becomes effectively normalized, since the implementation of ESD carries a "depoliticized notion of local 'realities' as something isolated and given, rather than relational and produced" (Knutsson, 2020, p. 650). In the second article, Knutsson (2021) explores what the international UNESCO-Japan prize on ESD can tell us about the global community's quest for sustainable development. When the prize is awarded to ESD initiatives in different parts of the world, it becomes evident that the initiatives are very different depending on the targeted population's level of income. What emerges from the analysis is a biopolitical pattern, where rich and poor populations are expected to become sustainable in very different ways.

2.4 The thesis's contribution to previous research

The thesis is informed by and contributes to the three strands of literature described above in several ways.

The thesis adopts Eikeland and Ohna's (2022) wider and more inclusive perspective on differentiation as compared to the narrower classroom-focused perspective. Although I recognize the importance of classroom studies and perspectives promoting the rights of all individuals to have their educational needs met, I question the narrow conceptualization of differentiation provided by Graham et al. (2021), in which all other ways of using the term are deemed "misinterpretations". It could be argued that the misinterpretation is rather theirs, and that a monopolization of the term differentiation runs the risk of foreclosing a wider understanding of the contextual factors influencing conditions for individual students, as argued by Eikeland and Ohna. The thesis contributes to previous educational and didactical research on differentiation at group and policy level by discussing the didactic *who?*-question in relation to differentiation and biopolitical theory. Furthermore, the thesis explores differentiation in ESD implementation at group level in policy and practice, and elaborates on didactical responses to problematic differentiation in ESD. The thesis also relates to previous ESE research on ESD implementation and biopolitical ESE scholarship through empirical contributions based on the hypothesis of biopolitical differentiation formulated by Hellberg and Knutsson (2018a, 2018b). This is done by adding new empirical and theoretical layers to the previous research conducted by Knutsson (2020, 2021). This involves, for example, empirical contributions based on a comparison between ESD practices in different local settings in different country contexts, and additional knowledge connected to the biopolitical rationalities and techniques used in the implementation of ESD in relation to rich and poor populations. It also involves problematizing biopolitical differentiation in ESD from a didactical perspective by elaborating on didactical responses to the problematics put forward in this literature.

3. Theoretical and methodological points of departure

This chapter outlines the theoretical and methodological points of departure of the thesis.

The thesis is informed by Foucauldian biopolitical theory (Foucault, 1998, 2003a, 2008; Lemke, 2011), but also governmentality theory (Miller & Rose, 2008; Rose, 1999) and Hellberg and Knutsson's (2018a, 2018b) theoretical and methodological approach for exploring global ESD implementation from a biopolitical perspective. In the thesis, a biopolitical perspective enables problematizations of educational differentiation in the conceptual articles (Articles 1 and 4), and inquiries into how rich and poor student populations are governed and differentiated between in global ESD implementation in the empirical articles (Articles 2 and 3).

In working with the thesis, theoretical assumptions and reflections have informed the whole process, from the design of the studies and interview guides to specific methods for data collection, analysis, and drawing conclusions. A chapter covering all these aspects would perhaps have been preferable, but in this kappa, this material has been divided in two (Chapters 3 and 4) to avoid an overly long chapter. Hence, even though this chapter is titled "Theoretical and methodological points of departure" and the next "Methods used in the articles", the two chapters should be read as an integrated whole.

This chapter is organized into two sections. The first section describes the main ideas and concepts of Foucauldian biopolitical theory that are of relevance for the thesis. The second section then presents how global ESD implementation is explored through a biopolitical/governmentality lens.

3.1 Foucauldian biopolitical theory

Biopolitics is a notion that has been used from the beginning of the 20th century in various fields of research and theoretical traditions concerned with the merger of life and politics (Lemke, 2011). This thesis is informed by the notion of biopolitics as developed by Michael Foucault in the 1970s, which places life in the

centre of political strategies and which refers to the government and administration of life at the level of populations (Foucault, 1998, 2003a, 2008; Lemke, 2011). The study of biopolitics thus explores how the life of populations is made into an object of political interventions and strategies of states and other actors.

Although Foucault did not write comprehensively about the role of schools and education for the governing of populations, the relevance of biopolitics has been widely acknowledged in educational research (e.g. Ball, 2012, 2017; Peters & Besley, 2007). This is because, as Ball and Collet (2021) note, once government was conceived in terms of the optimal management of the population within a given territory, schools have been one of the main institutions for the management, regulation, and normalization of the population.

The use of the term “biopolitics” was far from consistent in Foucault’s various texts (Lemke, 2011; Reid, 2022), and his theories have later been extensively modified, as well as critiqued, by other scholars (e.g. Agamben, 1998; Esposito, 2008; Hardt & Negri, 2000). However, this thesis stays close to the original Foucauldian tradition that consists of three main themes. These are: biopolitics as a form of modern power aiming to optimize the lives of populations; biopolitics as a necessary condition for liberal government; and biopolitics as differentiation and hierarchization between different populations and forms of life (Lemke, 2011, p. 34). The following text is structured accordingly.

3.1.1 Biopolitics as a power that optimizes lives

According to Foucault, biopolitics is part of a shift in techniques of power, beginning in the seventeenth century, that marks the passage from the classical to the modern age. Before this passage, sovereign power was the dominant form of power and was exercised primarily as a means of deduction, as a right to seizure “of things, time, bodies and ultimately of life itself” (Foucault, 1998, p. 136). Within sovereign power, the king had a divine right to kill, if threatened, and had thus a power over *death*, since the sovereign could exercise the right to kill or refrain from killing (ibid.).

As modernity evolved during the seventeenth and eighteenth centuries, the sovereign form of power was not replaced but supplemented by other techniques of power that targeted living populations as an object of government and political interventions. Instead of a power exercised by the sovereign through the juridical power of laws, this new technique of power, Foucault argues, is a power that

operates primarily through distributions of norms, and that presented itself as a power that exerts a positive influence on *life*, oriented at optimizing and multiplying it (ibid., pp. 137-138). In Foucault's words, this shift meant that the old right of the king "to take life or let live" was supplemented by a power over life that was to "foster life or disallow it to the point of death" (ibid., p. 138).

This new form of power over life, "bio-power", evolved in two basic forms. The first to appear was a set of disciplinary technologies of the individual human body (Foucault, 2003a, p. 243), while the other, and the main object of interest in this thesis, was a regulatory power that operates at the collective level of populations. Foucault describes this "biopolitics of the population" (Foucault, 1998, p. 139) as a form of politics concerned with governing the security of the population by applying different techniques aiming to enhance people's lives, knowledges, and skills in accordance with certain ends and rationalities. Such techniques required the production of knowledge about the living conditions and lifestyles of different groups (Lemke, 2011) in order to allow for the design of "appropriate" or "suitable" interventions. Hence, biopolitical government of populations was made possible through the development of statistics and explicit calculations about life processes, since biopolitics brings together knowledge of all the characteristics of the population and tries to predict and control random events that can occur within it (Foucault, 2003a, p. 249).

This conceptualization of biopolitics as a way of governing populations to enhance and optimize their lives in accordance with certain rationalities is important in this thesis. Global ESD implementation is here understood as a way of governing student populations through the enactment of "appropriate" ESD interventions adapted to the lives of populations. The governing of populations in ESD is taking place in the light of certain knowledge and assumptions about the targeted student populations and aims to optimize their lives in accordance with certain rationalities pertaining to ideas about what "sustainability" and "sustainable lifestyles" mean in relations to these groups.

3.1.2 (Neo)liberal biopolitics, agency, and responsible subjects

In the Foucauldian tradition, liberalism is not conceived of as an economic theory, historical period, or a political ideology, but as an art of governing human beings through the agency of free subjects (Foucault, 2008; Lemke, 2011; Rose, 1999). Biopolitics is closely connected to liberalism as it developed in Western societies

alongside liberal ways of governing and capitalist means of production, and the development of liberal biopolitics was, according to Foucault, made possible through “the adjustment of phenomena of population to economic processes” (Foucault, 1998, p. 141).

While liberalism and biopolitics are not the same, biopolitics can be seen as “a necessary condition for liberalism” (Dean, 2010, p. 133) since liberal government depends on biopolitical interventions to maintain order and security. This has to do with the liberal problem of how much to govern without governing “too much” (Foucault, 2008, p. 318), as too much government distorts the “natural laws” of the economy, while too little government tends to lead to a failure to establish the conditions of order, civility, productivity, and wellbeing (Rose, 1999, p. 70). Biopolitical interventions within liberal government can thus be seen as a way to balance the problem of how much to govern, since liberal biopolitics is both a means of governing populations according to the rationalities and ends of the governors, but also oriented towards respecting the agency of the ones being governed. Thus, liberal biopolitics assumes that those who are governed are capable of thinking, acting, and exercising a certain degree of freedom (Hansson, Hellberg & Stern, 2015) and therefore governs through the agency of “free” subjects. In this way, biopolitics does not operate primarily by force or laws, but rather through norms and by enticing or encouraging subjects to use their freedom in the “right” way (Foucault, 2008).

While liberal government is concerned with how much to govern without governing “too much”, neoliberalism has a different logic, promoting governmental interventions to safeguard the market. Instead of *laissez-faire*, neoliberalism actively intervenes to create and sustain markets, and is concerned with how to govern free individuals through *responsibilization*, what Foucault calls an “entrepreneur of himself” (2008, p. 226). Hence, the neoliberal subject is responsible for making well-informed choices and taking on responsibilities that have hitherto been in the domain of the state (Foucault, 2008; Lemke, 2001; Peters, 2017).

In global ESD implementation, governing through people’s freedom and agency is an important perspective to explore, and previous research has shown how the freedom and agency of different stakeholders are used when local ESD programmes are implemented (Knutsson, 2020). In this thesis, it means exploring how (neo)liberal government operates within global ESD implementation in different geographical and socio-economic settings by making use of people’s freedom and agency. It also involves exploring how different populations are made

responsible in global ESD implementation through inquiries into which sustainable *subjectivities* are promoted in ESD interventions and what *responsibilities* are assigned to different populations in the quest for sustainability.

3.1.3 Hierarchization and differentiation between populations

In Foucauldian biopolitical theory, the term *population* does not refer to the totality of individuals within a legal or political entity, but a “social body” characterized by its own internal processes, such as longevity, income, health status, lifestyles, etc. (Lemke, 2011). Grouping people together enables differentiation, as different techniques for maximizing life can be adapted to the targeted populations, so that they can be governed in differentiated ways. Governing populations differently requires both knowledge about the living conditions of different populations but also that these groups are separated and sorted in accordance with hierarchies of lives and lifestyles. As Foucault explains, a power whose task is to regulate the lives of populations must “qualify, measure, appraise, and hierarchize” (Foucault, 1998, p. 144), and differentiation among different populations is necessary in biopolitics since it allows for different populations to be governed differently (Lemke, 2011, p. 41; see also Foucault, 2003a). Thus, biopolitics is concerned with the management of groups of human beings who are grouped together by certain characteristics, and the ways in which the conduct of these populations can be shaped in different ways (Rabinow & Rose, 2003).

In this thesis, the notion of *populations* is used to explore how groups of students in different socio-economic contexts are constructed, separated, and governed through ESD interventions. This is done through inquiries into how different stakeholders construct student populations as suitable for particular forms of ESD. As Knutsson (2021) notes, “the population” is both an epistemic and a political object, whose living circumstances and lifestyles authorities (claim) to have knowledge about, and which can be shaped at a distance through regulatory interventions (p. 435). Thus, the interventions that are unpacked in relation to different student populations in global ESD implementation are assumed to build on knowledge and are designed to address the “problems” (see Miller & Rose, 2008, p. 61) that governing authorities locate (or construct) in the lives and lifestyles of these populations.

3.1.4 Biopolitics in the thesis

To sum up, Foucauldian biopolitics is a power that refers to the government of life at the level of populations, and is concerned with optimizing life and making it productive, or, in the case of this thesis, more sustainable. Biopolitical theory in this context enables inquiries into how student populations are biopolitically differentiated between in global ESD implementation, and how different populations are rendered more “sustainable” through the management of their conduct. This includes how different populations are constructed and made suitable for particular forms of ESD and how (neo)liberal modes of governing function in ESD programmes through notions of freedom, subjectivity, agency, and responsabilization.

3.2 A biopolitical approach to exploring ESD implementation

To explore how different student populations are governed in global ESD implementation from a biopolitical perspective, the thesis applies Hellberg and Knutsson’s (2018a, 2018b) theoretical and methodological approach, which draws on biopolitical theory and literature on governmentality (and environmentality). This section describes how the framework is employed in the thesis, but before that, a brief introduction of how the Foucauldian notion of government is understood in the thesis is necessary.

3.2.1 Government as a conduct of conduct

Biopolitics denotes the *government* of life at the level of populations, and government is also a key term in governmentality theory. Therefore, the Foucauldian conception of government, and how it is put to work in the thesis, is addressed before turning to how the methodological approach is applied in the thesis.

For Foucault (and within the governmentality literature), the term government is to be understood in a broad sense as ways of directing the conduct of others. Government refers to how power operates, not as simple domination, but as ways of acting upon other’s actions that also allow for a certain element of freedom for the governed. This has to do with how Foucault conceptualizes power, as he points out that there is no such thing as an entity of power that can be concentrated, and that power only exists when it is put into practice by someone in relation to others,

that is, power exists when put into action in power relations (Foucault, 1998; Foucault, 2003b). Unlike relations of physical domination, power can only be exercised over “free” subjects, to whom a range of possibilities and modes of behaviour are available, i.e. “that ‘the other’ (the one over whom power is exercised) is recognized and maintained to the very end as a subject who acts” (Foucault, 2003b, p. 340). By understanding power in this way, power is “less a confrontation between two adversaries or their mutual engagement than a question of ‘government’” (ibid.).

Government thus involves different ways of acting upon other’s actions and is described by Foucault as a “conduct of conduct” since conduct means to lead others but is also a way of behaving within a field of possibilities. This means that government includes “all endeavours to shape, guide, direct the conduct of others” and, at the same time, “also embraces the ways in which one might be urged and *educated* to bridle one’s own passions, to control one’s own instincts, to govern oneself” (Rose, 1999, p. 3, my emphasis).

In this thesis, this broad way of understanding government is central, and although the focus is on the government of different populations, the thesis also engages with the governing of subjectivities and of the self. When different governing institutions plan and implement ESD interventions, it is assumed that both the environmental conduct of populations, but also of individual subjects, are targeted. As will be argued in Articles 2 and 4, it is also in relation to the government of the self that resistance to biopolitical differentiation arguably has the potential to emerge. Thus, in this thesis I explore and problematize how government targets different student populations, but I also argue that the entire range of government, from the governing of whole populations, down to the inner government of the self, is important to consider when engaging with educational differentiation in global ESD implementation.

3.2.2 A methodological approach to studying ESD implementation

In their theoretical and methodological approach for exploring global ESD implementation, Hellberg and Knutsson (2018a, 2018b) draw on Foucauldian biopolitical theory and governmentality theory to argue that ESD can be understood as a biopolitical regime that operates under the premise that different populations must take on entirely different responsibilities in the quest for sustainable development. Rather than unifying humanity, ESD is instead claimed

to target different segments of humanity in very different ways, which ultimately risks reproducing the life-chances and lifestyle gap that exists between rich and poor. Although Hellberg and Knutsson make a convincing argument about biopolitical differentiation in ESD, they contend that more empirical research on what is actually happening in different geographical settings is needed for their claims to be qualified. To this end, they suggest how such a research endeavour can be approached methodologically.

For Hellberg and Knutsson, methodology is understood not in the narrow sense of the study of different specific methods, but in a broader sense, as a process that involves informed reflection about the relationship between theoretical assumptions, methods for data production, and analysis to arrive at knowledge claims (Hellberg & Knutsson, 2018b, p. 182; see also Hansson, Hellberg & Stern, 2015; Knutsson & Lindberg, 2017). More specifically, this means that the methodology is underpinned by Foucauldian theory assuming, for example, that knowledge is socially constructed, and that power does not emanate from a centre but is put into action in power relations that can be understood in terms of government. These theoretical assumptions direct which questions, research methods, study designs, and analytical approaches are suitable for the purpose of exploring global ESD implementation. In the following, the two main ways in which Hellberg and Knutsson's theoretical and methodological approach has informed this thesis are presented.

Firstly, to allow for a comparison of how ESD implementation unfolds globally and how the lives and lifestyles of different populations are targeted, the thesis follows Hellberg and Knutsson's call for research that does not take the nation state as the primary unit of analysis, but instead explores implementation both at the global policy level and in terms of how populations in different geographical and socio-economic settings are approached in ESD. This approach to comparing is important since inequalities between different populations exist between countries as well as within countries (Milanovic, 2017), and it is thus necessary to conduct research in countries with different income levels, and in various contexts within these countries (Hellberg & Knutsson, 2018b, p. 183). This means that a biopolitically informed methodology involves empirically exploring and comparing how ESD is implemented in different socio-economic contexts, and that such variation should guide the purposive sample (*ibid.*). Comparing different (school) contexts in this way allows for exploring how ESD targets, handles, and adapts to the various living conditions existing between different

populations, and whether there are patterns in how ESD is implemented that reach beyond local or national variations.

In the thesis, this comparative approach means exploring ESD implementation at the global level, through a biopolitical reading of the key policy documents of *ESD for 2030* (Article 2). It also means exploring how rich and poor populations are approached in ESD in various local contexts through a study with teacher interviews and observations at schools involved in the global Eco-Schools programme in Rwanda, South Africa, Sweden, and Uganda (Article 3). Although it would be naïve to claim that the limited studies in this thesis in any way preempt the great variation found between different contexts in global ESD implementation, it does however, together with other publications within the larger research project (Knutsson, 2020, 2021; Knutsson, Bylund, Hellberg & Lindberg, forthcoming) give an account of how rich and poor are targeted by ESD in a wide variety of geographical and socio-economic settings.

Secondly, the thesis applies the approach to biopolitically informed analysis of empirical data suggested by Hellberg and Knutsson, which focuses on how different populations are constructed and governed in ESD (Hellberg & Knutsson, 2018a, 2018b). This includes exploring and analysing both the *rationalities* of governing and the governing *techniques* used in the implementation of global ESD. The suggested approach, however, also includes a third perspective – governing *effects* – but this perspective is left out in this thesis, since it does not include interviews with the students who are the actual target of government in global ESD implementation.⁷

To start with, governing rationalities are ways of representing and knowing a phenomenon in order to make it thinkable and communicable in such a way that it can be amenable to interventions. Rationalities are thus styles of thinking and ways of using knowledge to construct a problematization of a particular phenomenon. In this case, it means that for ESD to be adapted to different student populations' perceived needs, governing institutions (such as schools) must have (and make use of) some form of knowledge about the students in order to apply suitable interventions. Therefore, the rationalities of government that are of particular interest in the thesis, given its biopolitical orientation, are what assumptions are made and what kind of knowledge governing institutions (claim) to have about the lives, lifestyles, and life trajectories of particular student populations (Hellberg & Knutsson, 2018a, p. 101), that is, how students' lives are

⁷ This important aspect of the effects of governing will be part of the larger research project and will be included in a forthcoming book (Knutsson, Bylund, Hellberg & Lindberg, forthcoming).

understood and how the sustainability problems and needs of students and their surrounding communities are constructed in order for certain interventions to appear as suitable. In relation to this, the following questions are of analytical relevance: How do different stakeholders construct different populations as suitable for particular ESD interventions? What knowledge, assumptions, problematizations, and values do these constructions build on? What conceptions of sustainable development form the basis for the interventions and what (environmental) subjectivities are attributed to different populations? (see Hellberg & Knutsson, 2018b). The rationalities of government are explored and analysed in several ways in the thesis. The question of how student populations are constructed as suitable for different forms of education is an important aspect of how biopolitical differentiation is problematized in Article 1. Rationalities are also used as one of the analytical categories in the biopolitical reading of *ESD for 2030* (Article 2) and as one of the key themes in the Eco-Schools study (Article 3), since this was applied in the design of the interview guides, the field work, and the analysis of data. Furthermore, the question of which subjectivities are promoted in ESD is explored and discussed in relation to both *ESD for 2030* as well as in relation to Eco-Schools implementation. Importantly though, given the uncertainty of governing and the idea that “government is a congenitally failing operation” (Miller & Rose, 2008, p. 17), regimes of government do not determine forms of subjectivity. Instead, they “elicit, promote, facilitate, foster and attribute various capacities, qualities and statuses to particular agents” (Dean, 2010, pp. 43-44). Hence, the subjectivities that are promoted, presupposed, and constructed within ESD implementation are not to be confused with real subjects, as it is always possible for the governed to resist attempts at governing their subjectivity (see Article 4).

If governing rationalities are ways of knowing a phenomenon, governing *techniques* are ways of acting upon it, so as to transform it and make it practically operable (Miller & Rose, 2008, p. 15). Analysing how technologies are used in governing involves studying the actual mechanisms through which authorities shape, conduct, and normalize the thought and conduct of others in order to achieve certain “rational” objectives (*ibid.*, p. 32). This include all the mundane techniques and tools which make governing possible, and in this thesis such tools include the didactical methods, policies, assessment criteria, and instructions that are used in the implementation of ESD. In exploring governing techniques, the following analytical questions are of relevance: How are pedagogical and didactical techniques used to direct the values and behaviour of the participants? How is

knowledge recontextualized to fit particular populations? How is the concept of sustainable development made relevant and concrete in the interventions and how do the interventions construct the students as responsible in relation to sustainability? (see Hellberg & Knutsson, 2018b). The governing techniques are explored in several ways in the thesis, such as inquiries into which pedagogical techniques are proposed to be used to target individuals in *ESD for 2030* (Article 2) and how local pedagogical projects are designed to govern environmental conduct and subjectivities in the Eco-Schools programme (Article 3).

3.2.3 Exploring global ESD implementation biopolitically

To sum up, this thesis explores and problematizes educational differentiation in global ESD implementation by employing Foucauldian biopolitical theory, which is concerned with how life is governed at the level of populations. In exploring and analysing how the conduct of different student populations is governed through global ESD, the thesis applies the theoretical and methodological approach suggested by Hellberg and Knutsson (2018a, 2018b) and the broad way of understanding government that is put forward within governmentality literature. This means that the thesis empirically explores implementation of ESD in different geographic and socio-economic contexts in countries with different income levels through governing rationalities and techniques. The methodological approach guides the inquiries into, and the analysis of, how (the perceived) knowledge about different populations' lives and lifestyles affects the implementation of ESD, and how different roles and responsibilities are assigned to different student populations. Furthermore, biopolitical theory is used to problematize how different student populations are addressed didactically and what didactical alternatives there are to biopolitical differentiation in global ESD. The next chapter presents how this methodological approach is employed in the four articles and what specific methods are used.

4. Methods used in the articles

This chapter builds on the previous chapter on theoretical and methodological points of departure, and presents more specific methods used in the four articles of the thesis.

The thesis, as established in the introduction, aims to explore and problematize educational differentiation between rich and poor populations in global implementation of ESD from a didactical perspective. To achieve the aim and to address the research questions, the thesis includes two empirical articles that explore how different student populations are governed and differentiated between in global ESD policy (Article 2) and in local ESD implementation (Article 3). The thesis also includes two conceptual articles problematizing how differentiation can be understood as a didactic problem that risks separating different student populations biopolitically (Article 1) and, also, what didactical responses there might be to such biopolitical differentiation (Article 4). These two ways of addressing the aim make use of different methods and approaches, which are presented in this chapter. It is, however, important to note that although the division between conceptual and empirical research is upheld in this chapter, the articles does not follow such a strict division. For example, all articles are informed by biopolitical theory, and the conceptual articles (1 and 4) include several empirical examples, whilst the empirical articles (2 and 3) also engage with theoretical problematizations and arguments. However, for the purpose of presenting methods in this chapter, the division between conceptual and empirical research is kept. The chapter thus consists of two sections that describe the methods used, first in the conceptual articles, and then in the empirical articles. The last section of the chapter then discusses the methods used and the ethical aspects of the research.

4.1 Methods in the conceptual articles

Articles 1 and 4 are the two articles in the thesis that are most explicitly oriented towards problematizing the biopolitics of global ESD from a didactical perspective. Although the articles draw on theoretical and philosophical literature

from various fields, the articles are first and foremost connected to the Nordic didactical tradition, which takes a wide perspective on didactics, ranging from learning theories to curriculum theory, underpinned by (educational) philosophy (e.g. Englund, 2004, see also Chapter 1). More specifically, the articles draw on biopolitical theory and make use of a range of theoretical/philosophical resources to problematize educational differentiation from a didactical perspective. This includes both formulating educational differentiation as a didactic problem (Article 1) and how the problem of differentiation in ESD can be addressed through different didactical responses (Article 4). To answer the research questions, the articles make use of approaches and concepts from literature discussing questions pertaining to the design of conceptual papers. Thus, before turning to the specific methods used in the two articles, some general issues and concepts addressing methodology and research design for conceptual papers are presented. This is done by drawing on Jaakkola's (2020) paper on methodological requirements and different approaches to designing conceptual articles.

In her paper, Jaakkola (2020) presents methodological requirements for conceptual research. According to Jaakkola, what is typical of conceptual papers is that the arguments are not derived from data in the traditional sense but rather involve forming arguments by assimilating, combining, and problematizing previously developed concepts and theories. In conducting such work, Jaakkola emphasizes the importance of explicating and justifying how different theories and concepts are chosen. In the process of choosing relevant concepts and theories for a conceptual study, there are two different points of departure suggested (p. 19). The first option is to start from a phenomenon that has not been adequately addressed in previous research and then argue that certain concepts and theories add *complementary* value, as they contribute to new ways of understanding and conceptualizing the phenomenon. The other option is to start from a particular concept, theory, or research domain, and argue that it is incomplete in some important respect, and then introduce additional theories that might help to bridge the observed gap. In this case, the choice of concepts and theories is based on their *supplementary* value, i.e. their ability to add additional perspectives to address a gap in previous literature.

Furthermore, since conceptual papers typically draw on multiple concepts, literature streams, and theories that play different roles, Jaakkola argues that the roles of the different theories and concepts used must be properly distinguished and explicated. It is important here to distinguish between theories and concepts that belong to the area of interest or topic of exploration and *method theories* used

to study or problematize the issues of interest (pp. 20-23). In conceptual studies, this means that the starting point can be taken in theories, concepts, or previous empirical findings of interest but that other specific theories and concepts are used as tools, or method theories, to provide an alternative frame of reference, amend an existing theory, and/or explore new aspects of the issue of interest. Thus, explicating how theories and concepts are chosen and what roles they have is important according to Jaakkola and these aspects have relevance for the presentation of methods for the two conceptual articles in this section.

4.1.1 Method in Article 1

Article 1 – *The Who? Didactics, differentiation and the biopolitics of inequality* – serves to set the stage for the rest of the thesis by problematizing educational differentiation at group level from a didactical and biopolitical perspective. The idea of the article originated from a discussion - both within the research project, but also in different seminars where the research project was presented - on whether/when educational differentiation is problematic and what the alternatives are. From these discussions followed a need to engage with these questions since it seemed, on the one hand, reasonable that education needs to allow for adaptations to accommodate differences between targeted groups, but on the other hand, that such adaptations possibly risk reproducing patterns of inequality. The article, written within the field of didactics, therefore addresses the research question *How can didactic adaptation of teaching and subject matter to different student populations be understood in relation to government, differentiation and inequality*, and aims to engage critically with the didactic *who?*-question.

The article is argumentative and situates the didactic *who?*-question in relation to biopolitical theory (see Chapter 3) and theories of inequality. In this way, the article functions both to connect didactics to biopolitics and to outline how inequality is understood in the context of the thesis and within the larger research project. For this purpose, Foucauldian biopolitical theory (Foucault, 1998, 2008; Lemke, 2011) and Göran Therborn's theory of inequality (2012, 2013) are applied (as method theories) to form the argument of the article, a procedure following three steps.

First, three basic conditions for the argument are established: (i) teaching, in this article, is understood as an activity that is largely planned for, and implemented in relation to, collectives, (ii) the didactic *who?*-question is closely connected to educational differentiation as it functions to construct an image of *who* the students are collectively and how education can be adapted to these constructed groups,

(iii) previous research on educational differentiation shows how differentiation can function both as a way of being attentive to difference and diversity, but also, that it risks reproducing inequalities related to class, gender, ethnicity etc.

After establishing these basic conditions, the next step of the procedure involves problematizing the *who?*-question as a “governing technique” that functions to conduct the conduct of both teachers and groups of students. This governing technique is then connected to biopolitical theory and how the (perceived) knowledges that teachers (or other stakeholders) have of the students is used to construct different student populations as suitable for particular educational interventions, thus enabling differentiation between different student populations.

The third step of forming the argument of the article involves applying Therborn’s theory of inequality to distinguish between inequality and difference. This distinction is important since it functions to form the argument that the didactic *who?*-question encompasses a field of tension between the recognition of difference and the (re)production of inequality, and that Therbornian questions can be used to make this tension more visible.

By applying these two theoretical perspectives and relating them to examples taken from Eco-Schools, the overall argument is formed, namely, that the didactic *who?*-question can be seen a governing technique that allows for educational differentiation between different populations, and that it operates within a field of tension between recognizing difference and reproducing inequality.

The article thus takes a starting point in the link between the didactic *who?*-question and differentiation and uses biopolitical theory and Therborn’s theory of inequality as tools or methods theories to problematize such differentiation. The theories function to add complementary value to previous literature and conceptualizations of the didactic *who?*-question by bringing in a new understanding of the *who?*-question as a governing technique with differentiating effects, located in a field of tension between difference and inequality.

4.1.2 Method in Article 4

Article 4 – *Education for sustainable development among rich and poor: Didactical responses to biopolitical differentiation* – is the concluding article of the thesis and serves to sum up the problematizations and empirical findings in the previous articles (as well as in the larger research project) and to address these problematizations from a didactical perspective. The article aims to elaborate on potential didactical

responses to biopolitical differentiation in global ESD and thus addresses the research question *What alternative didactical responses are there to biopolitical differentiation in ESD?* In doing so, it forms arguments by applying (method) theories of three thinkers in the continental philosophical tradition, namely Judith Butler's (2004, 2009) theories on vulnerability, Jacques Rancière's (1991, 1995, 2004) theories on inequality, and Michel Foucault's (1990, 1992) theories on ethics and self-formation. It also engages with previous research that elaborates on how these theories are relevant for education. The work of these three philosophers has been selected because they provide different intellectual resources that can be applied to elaborate on didactic responses to the "problems" that are identified in previous biopolitical literature as well as in the two empirical articles of this thesis. The theories also in one way or the other discuss the formation of subjects and subjectivity and how the current order of division between groups can be challenged.

The article is argumentative and involves the following process. First, the article presents a summary of findings from previous biopolitical literature that explores educational differentiation in global ESD implementation. This leads up to the second step of the process that involves formulating three "problems" derived from this literature. The third step of the process then involves elaborating on these problems from a didactical perspective by applying the method theories mentioned above, combined with previous literature on how these theories are relevant to education.

Compared to Article 1, the method theories of this article are used in a somewhat different way. It is argued in the article that there is a need for further consideration of didactic responses to the problematics put forth in previous biopolitical literature. Instead of bringing in new understandings of, or ways of conceptualizing, the phenomenon of interest – in this case biopolitical differentiation in ESD – the theories function to supplement previous literature. This is done by selecting theories according to their supplementary value, i.e. theories that help to elaborate on didactical responses from different perspectives in order to address the observed gap located in previous literature.

4.2 Methods in the empirical articles

In this section, the methods in the empirical articles (2 and 3) are presented. The articles form part of the empirical endeavour that the larger research project sets out to explore and contribute to the aim of the thesis by exploring educational

differentiation in global implementation of ESD from a biopolitical perspective. Drawing on biopolitical theory and Hellberg and Knutsson's (2018a, 2018b) framework, the articles explore how rich and poor populations are governed in global ESD implementation through different governing rationalities and techniques. This involves both the global policy level (Article 2) as well as the local level in schools in different geographical and socio-economic contexts (Article 3).

4.2.1 Method in Article 2

In Article 2 – *We must urgently learn to live differently: The biopolitics of ESD for 2030* – the present framework for implementing ESD globally is read through a biopolitical lens. The reading was thus informed by theory, directing the focus of our reading, and the work was conducted in several steps. First, the main texts facilitating the implementation of *ESD for 2030* were identified, namely the framework text (UNESCO, 2019) and the roadmap for implementation of the framework (UNESCO, 2020). The decision to focus on the framework *texts* was partly due to the restrictions during COVID-19, since the initial idea was to do an ethnographically inspired study at the global UNESCO launch meeting of the new framework. When the launch meeting was postponed by one year from May 2020 to May 2021, we had to reorient the study to focus on the produced texts, but our preparations included attending the global online meetings held by UNESCO, in which different aspects of the roadmap were presented during the second half of 2020.

The identification of the two main texts led to the second phase, where the framework and the roadmap texts were read several times by the researchers. The reading was informed by biopolitical theory and the theoretical and methodological framework by Hellberg and Knutsson referred to above, i.e. governing rationalities pertaining to different notions of life and divisions between different forms of life, and the different governing techniques promoted for implementing ESD in practice. The biopolitical reading was directed by the following analytic questions (Bylund et al., 2022, p. 44):

Analytic questions related to governing *rationalities* of life and differentiation:

- How is life conceptualized in the *ESD for 2030* documents?
- How are different populations categorized and distinguished between and what kind of assumptions and rationalities underpin such constructions and distinctions?

- How do the documents describe how individuals, both in relation to and in contrast with each other, should be targeted?
- How does this relate to the idea of population(s) and what do such constructions tell us about how the global biopolitical community is envisioned?

Analytic questions related to governing *techniques*:

- What instruments are proposed as ways to govern individuals and populations and how do technologies of responsabilization relate to larger (bio)political imperatives and distinctions?
- How do technologies of responsabilization play a part in constructing particular ideas of the good and sustainable society, the good life, and the good citizen/subject?

The third step of the analysis was to identify key passages in the framework texts and write texts addressing the analytic questions. These texts were then shared within the research group and were developed through subsequent comments and discussions of the texts. Other documents from the *ESD toolbox* were also identified through these writings, readings, and reflections and added to the material for analysis in line with the analytic questions. The final stage of the method involved writing up the findings, and these texts were then revised several times and discussed both between the authors and with other scholars in the research environment at our department, who read and commented on the manuscript. The method thus involved taking a theoretical approach to reading and reflection and the interpretations made by the authors were scrutinized both by ourselves and by others.

4.2.2 Method in Article 3

The third article of the thesis – *Apping lunch and earning keep: Eco-schooling in an unequal world* – aims to empirically explore and compare how the Eco-Schools programme is adapted to the lifestyles and living conditions of rich and poor populations in different local settings around the world. Eco-Schools is run by the Foundation for Environmental Education (FEE) and is the world’s largest ESD programme, providing “quality ESD at a large scale” (Eco-Schools, 2019). The primary source of data consists of transcripts from interviews with teachers and headteachers, supplemented by data including pictures and notes from

observations at schools and different printed materials such as teaching and learning materials, policies, and information folders⁸. The data was generated through fieldwork conducted during different periods between 2019 and 2022. In total, 45 teachers were interviewed in 31 schools, which enrolled students between the ages of 12-16, across different contexts in Rwanda, Sweden, South Africa, and Uganda⁹. Drawing on biopolitical theory and Hellberg and Knutsson's framework presented above, the article compares how ESD is implemented in these contexts and how rich and poor populations are differentiated between. In doing so, the article addresses the research question *How is global ESD implemented in relation to rich and poor student populations and what biopolitical rationalities and techniques are put to play in these processes?* The following text describes first how the fieldwork was planned, then how it was conducted, and finally, how the data has been analysed.

The study was planned to allow for comparative research exploring ESD implementation from a biopolitical perspective in different geographical and socio-economic contexts in countries with different income levels. For this purpose, the Eco-Schools programme was chosen since it is the world's largest ESD programme, with a global outreach, currently operating in over 70 countries worldwide. Furthermore, the programme is suitable for comparing and contrasting how ESD is unpacked differently, since all schools, irrespective of geographical or socio-economic contexts, follow the same basic seven-step programme (Eco-Schools, 2022), but are also allowed to adapt the programme to local circumstances and needs.

The selection of the four countries for the study follows the rationale of national contexts representing different income levels, with a high-income country (Sweden), a middle-income country (South Africa), and two low-income countries (Uganda and Rwanda).¹⁰ These countries were selected for mainly three reasons. First, all four countries had¹¹ established Eco-Schools programmes, reaching

⁸ The supplementary data consisting of notes and printed materials was used primarily as a support to remember the schools' different initiatives within the programme and which initiative was connected to the different Eco-Schools themes they worked with. Thus, the supplementary data plays a minor role in the analysis and is not presented in the excerpts and examples given in the article.

⁹ Apart from the data mentioned, which is used in Article 3, the fieldwork also included interviews with parents, students, representatives of non-governmental organizations, UNESCO officers, and researchers within the field of ESE. In the larger research project, a total of 171 respondents have been interviewed. These interviews will form the empirical base of forthcoming publications.

¹⁰ Country level income status is taken from the World bank (2022).

¹¹ The Eco-Schools programme in Uganda was shut down in 2022, three years after the fieldwork was conducted.

different regions within the countries, thereby enabling geographically diverse contexts. Second, the countries together offer the full width of contexts, from affluent urban areas in the global north to poor rural areas in the global south, and the intra-national diversities and inequalities of the countries represent a variety of research contexts that are appropriate for the comparing and contrasting purpose of the study. Third, the researchers within the larger research project have extensive previous experience in conducting research within these countries.

The next step of planning the study involved selecting the different types of geographical contexts to target in the comparison, as well as deciding upon the specific school sites to be included in the research. The different types of contexts that were decided upon were contexts that together cover schools in both urban and rural areas, as well as in various socio-economic settings. Although there were no affluent eco-schools enrolled in the programme in Rwanda and Uganda, the final material represents, in total, all these different contexts. It is thus a purposive selection with a “typical selection strategy” that aims to explore what are common or typical ESD interventions in different socio-economic contexts, but which also explores the “boundaries of difference” within the whole experience of ESD implementation (Polkinghorne, 2005, p. 141). The selection of schools for data collection followed different approaches in the different countries since we were more dependent on the national operators of Eco-Schools in countries outside of Sweden to assist us with access and information about potential schools. In Sweden, the participating schools were listed on the website of the national operator, which made it possible to contact the schools directly. Thus, the process of selecting schools was narrower and more dependent on other stakeholders in South Africa, Rwanda, and Uganda.

In planning for the fieldwork, an interview guide for semi-structured interviews was produced. Semi-structured interviews were chosen in this study since it is important that the same themes are covered in all schools to enable comparison between the different contexts, but also that the interviews can depart from the structure and follow up on new ideas and take unexpected routes. The interview guide was designed with a relatively high degree of structure to allow for comparison (see Cohen, Manion & Morrison, 2018, pp. 509-510; Rowley, 2012), and follows the methodological framework presented above by focusing on governing rationalities and techniques used in the implementation. The rationalities include how the students are made suitable for particular ESD interventions, through inquiries into how the teachers describe the demographics of the school, what projects the school has chosen, and why these particular

projects are considered important for the students' lives and lifestyles. The governing techniques involve focusing on the mundane tools that are used to govern the students' (environmental) conduct, through inquiries into what materials are used and how the students are made active in the different projects. The interview guide was first used in the fieldwork in Uganda and then modified slightly throughout the rest of the fieldwork. Other preparations prior to, or at the beginning of, the fieldwork involved setting up a data management plan, which included discussions on types of data that should be generated, and how to structure a secure storage space for the data. Furthermore, materials were produced that could be sent to the schools and national operators, such as information about the study, including ethical aspects of the study.

In overview, the fieldwork for Article 3 started in Uganda in November 2019 but was interrupted due to the outbreak of the COVID-19 pandemic at the beginning of 2020. The work was then resumed in the autumn of 2020 in Sweden but was, due to the restrictions, mainly conducted through online interviews throughout 2020 and 2021. In 2022, it was possible to resume the fieldwork without restrictions, with two fieldtrips to South Africa in February/March and September, and one to Rwanda in October/November, while the rest of the Swedish fieldwork was conducted throughout 2022. The online interviews in Sweden during the pandemic made in-location observations impossible for most of the schools in the sample, but this was partly compensated for through pictures, presentations, and other materials shared by the teachers at the schools.

Although the ways in which the schools were contacted differed somewhat (given that the schools' access to internet and electricity varied, and that some schools were first contacted through the national operators), the following approach was typically used to reach out to the participating schools. After identifying several eco-schools in different socio-economic and geographical contexts, the schools were contacted, either directly (in Sweden) or through the national operators, with an invitation to participate in the study. The schools that showed interest in participating were sent further information, including the aims and ethical aspects of the study, and were also offered the opportunity to read through the interview guide in advance¹². After this, the teacher responsible for the Eco-Schools programme at the school suggested a suitable day for the visit. Before the interview began, the respondents were again informed orally about the purpose of the study and about the ethical aspects of participating in the study (see

¹² Some schools in the poorest contexts did not receive all the information in advance due to lack of opportunities to send and receive e-mails within these schools.

next section). Furthermore, the respondents were asked for consent for audio recording of the interviews and the interviews were then conducted at the schools, with one or up to three respondents. This was followed by a walk on the school premises, where the different projects were shown. The interviews took 45-60 minutes and were conducted in English in Uganda and South Africa and in Swedish in Sweden. In Rwanda, the majority of the interviews were conducted with an interpreter translating from Kinyarwanda to English. Additional gathering of printed material and presentations were either conducted at the school or sent by e-mail afterwards. The audio recordings were then transcribed verbatim by a professional transcriptionist and stored together with the other material in line with the data management plan for the larger research project.

The analysis of the data for Article 3 took place throughout the period of data collection. The authors had meetings where we discussed the data from Uganda and from the initial interviews in Sweden, and an early analysis of parts of the data was also made as preparation for a conference presentation in Oslo in October 2021. The main analysis, however, was conducted in late 2022 and early 2023, after the completion of the fieldwork. The analysis focused on rationalities and techniques, and was conducted in several steps. First, the transcripts were read through by the authors, followed by an open-ended discussion on general patterns, themes, and exceptions. A summary of the individual school's work with Eco-Schools was also produced in this step. This led to the second step of the analysis, where we decided upon the three themes of the article, which guided a second reading and discussion of the interview transcripts. The third step was to write drafts for the three themes. The drafts were then read and commented upon by the authors and revised several times. The fourth and final step was to complete a draft of the whole article, which was then critically scrutinized at a seminar in the critical research environment at my department.

4.3 Reflections on method and research ethics

This section includes a reflection on the method used, followed by reflections on the ethical aspects of the research. There are many possible reflections, given that the thesis consists of four studies with research conducted in four different countries. However, I have chosen to focus on some aspects that I think are especially relevant in relation to this thesis. These aspects are mainly connected to the empirical Eco-Schools study in Article 3.

4.3.1 Reflections on method

The main aspect of the method in Article 3 that I find worth critically considering is how the material from the interviews differs between different countries and contexts, and how this could affect the comparison between these contexts. This includes both differences in how the selection of schools was made, and differences in how the interviews were conducted. Although I will not be speculating on how these variations might have affected the study, it is important to note these differences and have them in mind when reading and evaluating the findings of the article. As mentioned in the section above (4.2.2), the schools in the Eco-Schools study were selected in different ways in the different countries. In Sweden, the schools were contacted directly via e-mail without involving the Swedish national operator of Eco-Schools (Håll Sverige Rent). In Uganda, the three schools were selected in different ways as one was recommended by the Ugandan national operator at the time (CECOD), one was contacted directly, since the school was featured in a “best practice” brochure provided by the national operator, and one school was recommended by another school. In Rwanda and South Africa, the selection was dependent upon the recommendations made by the national operators in each country (ARCOS in Rwanda and WESSA in South Africa). There are mainly two reasons for the different ways in which the schools were selected. First, all schools do not have the same access to the internet, or electricity for that matter, which makes it impossible to locate poor rural schools through the internet or contact them via e-mail. Second, it is not possible to get a local research permit if the research locations are not specified in advance and this process was made possible through the cooperation with the national operators, who possess local knowledge.

It is not possible to discern what effect these differences have had for this research but it is likely that the schools selected by the national operators are schools that in some way represent practices that the organizations consider to be “good” practices. Thus, in Rwanda and South Africa, and to a high degree in Uganda, it is probable that the schools selected represent what the national operators perceive as “best practices” to a greater degree than in Sweden. This potentially affects the results and what can be compared between the different country contexts. In this case, however, I would argue that the effects are limited given the design of the study. In Sweden, even though the schools were contacted directly, several of the schools were located through the website of the national operator or through the schools’ websites or social media where they promoted

their Eco-Schools projects. The schools are thus active eco-schools and in the interviews, it was made evident that they had close cooperation with the national operator and followed the programme according to their guidelines. Therefore, the selected schools in Sweden might not differ substantially from the schools in Rwanda and South Africa when it comes to how active they are and how closely they follow the guidelines provided by the national operator for Eco-Schools. Furthermore, the aim of the study is not to explore how different schools within one country context are following the programme's guidelines or to evaluate the quality of the school's work in terms of how "successful" or "unsuccessful" they are. The study focuses on governing rationalities and techniques, and for this purpose, it is beneficial if the schools are active and engaged partners of Eco-Schools, as it allows for a variety of completed and ongoing projects to be reflected upon by the interviewed teachers.

The second aspect of difference within the interview material is that the interviews were not conducted in the same way and by the same person. When it comes to who conducts interviews, there are important discussions in the methodological literature on how the existing inconsistencies within a team of researchers affects the quality of the interview data (Pezalla, Pettigrew & Miller-Day, 2012). In this thesis, these aspects must be considered as marginal, given that the same person conducted a majority of the interviews¹³ and that we had ongoing discussions within the research team on the design of the interview guide. When it comes to the interviews being conducted in different ways, it might be more problematic with regard to the possibility of comparing. In Rwanda, South Africa, and Uganda, all the schools were visited, and the interviews were conducted with the teacher(s) at the school. In Sweden, however, only four out of eleven interviews were conducted at the schools. This affects the possibility of comparing photos taken of the different projects at the schools and weakens the overall knowledge about the school context which one gets when visiting the school premises and the surrounding area. Interviews conducted online might also have different benefits and drawbacks compared to interviews carried out on location, but these effects are not as evident when, as in this case, video is used (Cohen et al., pp. 538-540). In sum, the Swedish interviews were conducted differently than those in the other countries. This is not ideal, and it might affect the possibility of comparing the same type of data, since the Swedish data overall contains less

¹³ I conducted the interviews with the teachers at eight of the eleven schools in Sweden; at all of the schools in South Africa; at all of the schools in Uganda; and at three of the five schools in Rwanda.

information than the data from other country contexts. It is not possible to know how this has affected the study but maybe it has somewhat limited the possibilities of giving the same nuances in the descriptions of the Swedish schools, compared to schools in other country contexts. However, it was necessary to keep going with the gathering of the data, given that a PhD position is limited to four years, and during the COVID-19 pandemic, interviewing via video was the only available option. The final aspect of difference in how the interviews were conducted concerns the use of an interpreter in Rwanda. The interpretation was made in third person and the excerpts were modified to be in first person. Furthermore, it seemed that all the information provided by the interviewee was not translated verbatim. Sometimes the interviewee made quite lengthy statements, but the interpreter summed it up in a few sentences. Thus, it seems as if some information was lost in the process, and it is not possible to know what this means for the final result. Once again, it is probable that these interviews contain less detailed information and that the result should be read with this in mind.

4.3.2 Reflections on ethical aspects of the research

This thesis is written, as noted above, within a larger research project that has been approved by the Swedish Research Council (Vetenskapsrådet, 2018-04029), and it follows the ethical guidelines from the council presented in the publication *Good research practice* (Vetenskapsrådet, 2017), as well as the European code of conduct for research integrity (ALLEA, 2017). According to these guidelines, research is to be conducted in such a way that the dignity and autonomy of human research participants is respected, and the research is not to cause significant risks, damage, or harm to research participants, communities, or other subjects of research. To assure this, the research has been conducted using informed consent from all the participants and the data has been handled with anonymity. This means that prior to conducting the interviews, the participants received information about the research project and about the rights of the participants to withdraw their consent both during and after the interviews. This information was also provided before the start of the interviews, and oral consent was obtained to audio record the interviews. Furthermore, the handling of all data in the project is governed by a local data management plan, approved by the Department of Pedagogical, Curricular and Professional Studies at the University of Gothenburg. In sum this means that:

- Participation in the research has been based on the principle of informed consent and a participant in the study was able to withdraw from the study at any stage.
- A participant in the research could not be under 18 years of age.
- The research has operated under strict anonymity. There is no mentioning of names of geographic locations, schools, teachers, students, school staff, or any other informants.
- To the extent possible, the data cannot be linked to specific individuals since the research does not include any personal data.
- After the completion of data collection, all data is stored in an external hard drive placed in a strongbox at the department of Pedagogical, Curricular and Professional Studies. All files on the hard drive are anonymized both in terms of content and file names.

The research procedure above is important in that it protects the integrity of the research subjects to the extent possible. However, ethical considerations of research involve other aspects than how the research was conducted practically. In the following, some aspects pertaining to ethics in critical research conducted in low-income contexts are presented and reflected upon in relation to Article 3, as these aspects are considered especially relevant for this thesis.

The thesis is written in a critical theory tradition, and during my PhD studies I have been part of the research environment *Critical education research* (KRUF) at our department. According to Apple, Ball, and Gandin (2010), there are some key tasks for critical researchers to engage in. One of these tasks “is to illuminate the ways in which educational institutions, policies and practices are connected to the relations of exploitation and domination – and to struggles against such relations – in the larger society” (p. 5). Although this thesis – given its Foucauldian approach – does not employ the words exploitation and domination frequently, I take a normative stance in questions of inequalities within educational policies and practices. I agree with Lather’s (1986) argument that since neither education nor research is neutral, there is no need to apologize for undertaking clearly normative research that criticizes the status quo of inequality (p. 67). In this thesis, this means that a starting point is taken in the empirical fact that the world is enormously unequal, but a normative stance is added that perceives inequality as inherently negative and something that needs to be struggled against. This is so because I agree with scholars who argue that inequality is ultimately lethal to poor populations (e.g. Therborn, 2013) and that the wealth of affluent populations is

upheld by unequal exchange and the exploitation of cheap labour and land elsewhere (Hornborg, 2021). Thus, the interpretations put forward in this thesis of what the results might mean for ESD practice and policies should be read with this normative standpoint in mind.

One ethical aspect that is important to reflect upon in the context of this thesis is the relation between me as a researcher and the research subjects, and more specifically, the relation to the participants belonging to the poor populations interviewed. In Cohen et al. (2018), conducting interviews with minority or marginalized groups (such as asylum seekers, those with low status in society, the unemployed, etc.) is problematized. When conducting interviews with marginalized groups, Cohen et al. emphasize – drawing on Swain et al. (1998) and Barron (1999) – that the research should practise reciprocity, i.e. that the research should bring benefits to the research subjects so that the exploitation and marginalization of these groups is not upheld (p. 531). Furthermore – drawing on Connolly (2003) – they argue that “powerless” participants might feel used in educational research “not only providing data but advancing the careers of the researchers whilst leaving themselves disempowered” (Cohen et al., 2018, p. 241). When attending to these problematics, Cohen et al. (2018) emphasize that the researcher must be attentive to asymmetries of power, as the researcher can be regarded as “having more power than the respondent” (p. 531) and that the research must be conducted with respect, affording dignity to the participants, whilst not necessarily making promises that cannot be kept (p. 241).

In this thesis, these aspects of research ethics are, and have been throughout the fieldwork, highly important to consider (although I take a different stance to power asymmetries than the one in the paragraph above). During the fieldwork, it has been important to emphasize to the participants that the research does not bring any direct benefits or personal gains to the participants. Rather, the perspective has been that the participants are the ones that are doing me/us a favour and that we are grateful for their contribution and for them taking the time to participate. The schools have been informed that we are flexible regarding their time schedule and that the lessons and teaching at the schools should be prioritized and affected as little as possible. Furthermore, if there has been any type of assistance that we could provide, we have considered these possibilities without making promises that we could not keep. This assistance included, for instance, helping to distribute academic texts to a teacher that was about to apply for a position as a PhD student and offering help in contacting Swedish schools for possible exchange projects between schools in different countries. In sum, the

measures taken, and the assistance offered by us, are marginal and the problem of reciprocity is not by any means met through these actions. The research conducted is thus far from meeting one of the other criteria for critical research listed by Apple et al. (2010), that the researcher should support those groups of people and social movements who are now engaged in challenging existing relations of unequal power. Rather, it is certainly true that the research conducted for this thesis carries a risk of falling into the problem of leaving the participants in the same situation as before, while myself go on to pursue a PhD and a career in academia, with the help of the data that I have “collected” in poor contexts.

Turning to the problem of asymmetries of power, the research operates within a global context that is marked by abysmal inequalities. Here, it is important to note – especially since I criticize ESD for adapting to global inequalities – that the research I conduct also adapts to inequalities pertaining to (post)colonial patterns. Doing research in poor countries in Africa and contrasting educational practices between different countries could be seen as important since it highlights global inequalities and might in some way also contribute to change. However, it is almost impossible to imagine the reverse scenario, that a black researcher from Rwanda or Uganda would travel around Sweden and conduct comparative research in schools with full access to departments, NGOs, and other important stakeholders. Thus, the research is in this way dependent on the funding, resources, and credibility that are associated with a university situated in the rich global north.

Another aspect of power asymmetries is the power relations existing between me as a white, male, “Western” researcher, and the respondents in poor contexts. These relations of power must be taken seriously as there might be little room for the respondents to decline to be part of the research and they might feel forced to answer all the interview questions. This has to do both with the fact that most of them were selected by the national operator of Eco-Schools, which they are dependent upon for support to the school, and, also, that there is a risk that the respondents feel that a foreign researcher from a rich country is some sort of authority. However, by adopting a Foucauldian understanding of power, I take a different stance to power asymmetries than, for example, the perspective in Cohen et al (2018), as referred to above. First, I do not understand the research participants as “powerless”, but rather that power only exists in relations where a range of possibilities to act and resist is possible (see Section 3.2.1). As shown by Vähäsantanen and Saarinen (2012) in their study on how power is manifested between interviewer and respondents, power can take many forms and be distributed diversely, shifting back and forth between the research participants

during the interview. For instance, respondents can withhold information or talk about something other than what is asked for. They are also in the position to decline to answer questions and to withdraw from the research (Vähäsantanen & Saarinen, 2012, p. 494; see also Kvale & Brinkmann, 2009). In the research conducted for this thesis, this means that although there are reasons to believe that the participants have had little room to decline to participate in the interviews, they have had the opportunity to resist the interview questions by, for instance, talking about other things than those asked for and to present only aspects of the Eco-Schools programme that are suitable for their purposes. Hence, I am certain that the power relations that exists between me and the participants from poor contexts affect the results in different ways. To say anything about the effects of these power relations, one would need to conduct a thorough analysis from this perspective of all the interview transcripts, something that unfortunately is not possible within the scope of this thesis. What can be pointed out, however, is that the relations of power are different in, for instance, the interviews conducted in Sweden compared to Rwanda and South Africa, since the Swedish teachers did not have expectations from the national operators whilst the Rwandan and South African teachers probably did. Thus, the results from the research should be read with this in mind.

To conclude this reflection, I would like to end on a positive note. Although the respondents in poor contexts might have had fewer opportunities to decline being interviewed due to the power relations described above, my experience during the fieldwork was not that the teachers were negative about having a foreign researcher visiting their schools. On the contrary, I felt most welcome, and several of the schools had arranged different activities to show how they engaged in the sustainability projects. My experience was that they were proud of their achievements and felt encouraged by being selected and that their work was noticed by others. Although the research is critical and I argue that many of these practices are problematic seen within the wider context of global inequality, I also want to stress that the teachers I have met, for the most part, have been engaged teachers that work hard to bring about change for the students in their local context.

5. Summary of the articles

This compilation thesis consists of two conceptual articles (Articles 1 and 4) and two empirical articles (Articles 2 and 3), and each of the articles addresses one of the research questions. In this chapter, summaries of each of the four articles are provided.

5.1 Article 1

Title: The Who? Didactics, differentiation and the biopolitics of inequality.

Authors: Bylund, L. & Knutsson, B. (2020)

Published in: Utbildning & Demokrati – Tidskrift för didaktik och utbildningspolitik, 29(3), 89-108.

This article addresses RQ 1 (*How can adaptation of teaching and subject matter to different student populations be understood in relation to government, differentiation, and inequality?*) and it connects educational differentiation, Foucauldian biopolitical theory, and didactics, through a problematization of the didactic *who?*-question. The article's approach is argumentative and theoretical, although an example from Eco-Schools in Sweden and Uganda is used to illustrate the arguments.

In recent years it has been increasingly common to see the three core questions of didactics – *what?*, *how?* and *why?* – accompanied by a fourth question – *who?*, and the aim of the article is to engage critically with the didactic *who?*-question. This is done in two ways: first by discussing the *who?*-question as being located in a field of tension between recognition of difference and reproduction of inequality, and, second, by showing how the *who?*-question can be understood as a biopolitical governing technique that involves knowledge and assumptions about the lives, lifestyles, and future life trajectories of different groups of students. Thus, the article focuses on cases where the *who?*-question is directed at collectives of students rather than individuals in the classroom.

In the discussion of the didactic *who?*-question as located in a field of tension between difference and inequality, the article situates the *who?*-question within a broader discussion on educational differentiation. Some typical arguments for and

against differentiation within educational research are presented, and it is suggested that there are valid arguments on both sides. The literature arguing *for* differentiation often emphasizes the importance of adapting education to the lived experiences, cultural characteristics, and frames of references of students in order to make the subject matter more meaningful and to allow it to be learnt more effectively by the students. Differentiation at group level is furthermore argued to be a way of resisting education that reproduces a hegemony of knowledge associated with white, middle-class cultures, which carries a risk of violating minority students' home cultures and languages. Arguments *against* differentiation, on the other hand, often take a starting point in the reproduction of societal patterns related to social class, gender, and ethnicity. Within this literature, it is argued that students from minority and working-class backgrounds are often placed in low-ability groups and educational tracks that do not prepare students for university or college education. Hence, arguments for differentiation often focus on managing *difference* and diversity among students, whilst arguments against differentiation are rather concerned with (re)production of *inequality*. These different arguments form the basis of our claim that the didactic *who?*-question can be understood as located in a field of tension between difference and inequality, since the management of diversity and difference can easily slip into a (re)production of inequality. In order to make this field of tension more visible, and possibly more navigable, we turn to Therborn's theories of difference and inequality, to suggest a number of "Therbornian questions". These questions are argued to be useful whenever the *who?*-question is posed in order to get an idea whether a differentiating practice, which is the result of the posed *who?*-question, leans towards a legitimate didactic management of difference or if it rather risks reproducing inequality.

To engage critically with the didactic *who?*-question as a governing technique, the Foucauldian theory of government and biopolitics is employed in the article. Governing techniques, as understood by Foucauldians, refer to concrete and mundane tools for governing conduct, spanning from the government of the self to the government of populations. In our argument, the didactic *who?*-question functions as a governing technique that guides the everyday work and self-conduct of teachers regarding how they select and organize teaching content deemed relevant for particular groups of students. This work includes grouping students together according to certain characteristics – i.e. asking *who* these students are – and finding appropriate ways of addressing them in order to optimize their education. Thus, based on more or less solid knowledge and assumptions about

the lives, lifestyles, needs, and future life trajectories of the targeted student population, the *who?*-question functions to construct groups of students as suitable for particular teaching and subject matter, and makes it possible to distinguish between different student populations. Hence, the didactic *who?*-question can be understood biopolitically, since it can be conceived of as a technique to optimize teaching in accordance with characteristics pertaining to the lives of student populations, and since it makes it possible to differentiate between populations.

In summary, the didactic *who?*-question can be perceived of as a mundane and harmless technique for selecting suitable material and methods for teaching. However, in the article it is argued that it should be used with care, since educational management of diversity and difference, as illustrated by the Eco-Schools example in the article, runs the risks of falling into a (re)production of unequal societal patterns. The “Therbornian questions” can possibly help to navigate this field of tension that the *who?*-question encompasses, not to determine an exact position between the two poles, but at least to offer an indication as to whether differentiation starts to become problematic.

Despite these critical observations, the article concludes that there might be radical potential in the *who?*-question, provided that it is handed over to the students, allowing them to explore the nature of the relationships between their own communities and other communities, as well as the relationships between different socially constructed groups of people in society.

5.2 Article 2

Title: ‘We must urgently learn to live differently’: the biopolitics of ESD for 2030.

Authors: Bylund, L., Hellberg, S. & Knutsson, B. (2022).

Published in: Environmental Education Research, 28(1), 40-55.

This article address RQ2 (*How does global ESD policy handle the different living conditions and lifestyles of rich and poor populations?*) by exploring biopolitical elements of the present global UNESCO framework for implementing ESD - *ESD for 2030*. It is the first of two empirical articles in the thesis exploring educational differentiation in global ESD, with this article focusing on global ESD policy.

While previous research has brought attention to the exclusion of certain populations and the devaluation of local knowledge in ESD policy, this paper offers a different perspective by bringing attention to the dubious *inclusion* of poor

populations and the problematic manners in which contextual difference is *recognized*, in *ESD for 2030*.

In the article, *ESD for 2030* is understood as a global education policy arrangement, and the key documents identified, and included, in our analysis are the following: the main *framework text* approved by the UNESCO General Conference; the *roadmap* for implementation produced by UNESCO; and various texts found in the *ESD toolbox* – an online bank of resources intended to facilitate implementation among teachers and other stakeholders. These key documents of *ESD for 2030* are analysed through the lens of some of the core components and themes of biopolitical theory, and this analysis builds on the theoretical and methodological framework developed by Hellberg and Knutsson (see Chapter 3). This involves exploring the framework's notion of life and how different populations are separated and constructed as suitable for different ESD interventions. Furthermore, the analysis brings attention to the different biopolitical techniques that are put forward within the framework as responses to sustainability challenges.

The analysis shows that the sustaining of life is a central logic in *ESD for 2030*. The framework expresses the need for radical changes in the ways we live, and education is given a central role in this transition. The notion of life mediated in the framework is found to be hierarchal and anthropocentric, as it privileges humans over other forms of life. This prompts questions of how a framework concerned with sustaining *life* on the planet can devote so little attention to non-human living beings. Furthermore, the framework generally addresses humanity as a collective subject, but when the analysis zooms in on who is included in the notion of humanity, it becomes clear that different categories of populations are assumed to be targeted differently, i.e. that ESD is supposed to be adapted to the different socio-economic contexts in which it operates. This adaptation is argued to run the risk of falling into global patterns of inequality, since the framework suggests that ESD deemed suitable for affluent populations is not effective for populations in need. Instead, it suggests that providing basic life-skills and skills to ensure one's livelihood should be prioritized in relation to poor populations.

In relation to the biopolitical techniques applied in *ESD for 2030*, the paper identifies three central techniques: transformative pedagogy; individual transformation; and transformation of communities. Thus, the framework addresses both individuals and collectives, and the analysis demonstrates how transformative pedagogy is supposed to work through individuals and communities to bring about a transition to a better and more sustainable future.

This transition is argued to be accomplished through self-governing techniques of responsabilization and transformation of individual conduct. Furthermore, the learners' capacities to act as agents of change are to be enhanced by fostering engagement primarily at the community level. Engagement in local communities is seen as especially important within the framework, since communities are argued to supply the causes, solidarity, and partners necessary for individuals to participate in collective action for transformation.

Through the analysis, *ESD for 2030* is shown to follow a rationality in which different groups of students are to be targeted in different ways. The framework explicitly states that ESD, in relation to poor populations, is to focus on basic life-skills to ensure their livelihood. Thus, in contrast to previous research, the article puts forward the argument that rather than excluding certain populations, *ESD for 2030* assumes poor populations to be targeted in particular ways in accordance with their socio-economic living conditions. Such a biopolitical division between rich and poor is argued to be problematic as using this approach risks contributing to entrenching inequalities and unsustainable ways of living rather than creating favourable conditions for sustainability.

In contrast to a biopolitical differentiation separating rich and poor, the article concludes by suggesting a more affirmative educational differentiation built on Foucauldian theory on ethics and self-formation. It is suggested that instead of finding already existing values and causes within the local community, learners should practice critique and active self-formation by investigating how their own community and other communities have been formed in relation to each other and how different ways of living affect and are affected by others. Thus, learners in wealthy communities could practice critique and scrutinize their unsustainable consumption patterns and work to “unlearn” their privileges, whilst learners in poor communities could instead acquire skills to scrutinize unequal power relations and distribution of resources. Although it is acknowledged that affirmative differentiation in ESD alone is not nearly enough to reach the goal of a more sustainable world, it is still possible that the suggested approach can contribute to a more radical form of ESD. This is a form of ESD that acknowledges how global patterns of inequality between different individuals, communities, and populations are intertwined with the cause and impact of sustainability problems.

5.3 Article 3

Title: Apping lunch and earning keep: Eco-schooling in an unequal world

Authors: Bylund, L., Knutsson, B. & Lindberg, J. (2023).

Submitted manuscript

This article addresses RQ3 (*How is global ESD implemented in relation to rich and poor student populations and what biopolitical rationalities and techniques are applied in these processes?*) by exploring and comparing how the global Eco-Schools programme is implemented in different geographical and socio-economic contexts. It is the second empirical article of the thesis exploring educational differentiation in global ESD, with this article focusing on ESD implementation in practice.

Eco-Schools is the world's largest sustainable school programme, operating in more than 70 countries worldwide, which makes it a suitable example of how ESD is implemented in different contexts. The programme is implemented in schools according to a global seven-step framework, and aims to have a life-long positive impact on the lives of young people by improving the environment in both schools and their surrounding community. Since it is the largest global ESD programme, it has attracted a lot of research interest consisting mainly of studies evaluating the Eco-Schools programme in single national contexts. This article contributes to previous research by adding a critical comparative dimension.

The study builds on fieldwork conducted between 2019 and 2022 in eco-schools in Rwanda, South Africa, Sweden, and Uganda. The material consists of transcripts from interviews with 45 teachers and/or principals in a total of 31 schools located in very different geographical and socio-economic settings. The transcripts, which constitute the main data for the article, are also supplemented by other supporting material consisting of various printed materials and field notes from observations at the schools and their surrounding areas.

The study applies the theoretical and methodological framework for exploring global ESD implementation from a Foucauldian biopolitical perspective developed by Hellberg and Knutsson (see Chapter 3). This entails exploring the governing rationalities and techniques at work when the Eco-Schools programme is implemented in relation to different populations. In terms of rationalities, it means exploring and analysing how different student populations are constructed as suitable for different Eco-Schools activities and what kind of subjectivities these interventions aim to produce. The techniques, in turn, involve paying close attention to the pedagogic and didactic techniques that are employed to promote

‘green’ skills and sustainable lifestyles amongst eco-schools in different socio-economic contexts.

The findings of the study are organized according to three themes related to: how lives and lifestyles are perceived and sustainability problems framed; how the Eco-Schools themes of food and waste are implemented; and, how the local community is addressed. The findings show that in eco-schools in poor *rural* contexts in Rwanda and Uganda, the students are generally described as coming from poor rural communities consisting of small-scale farmers with meagre educational backgrounds. Problems identified are inefficient resource management and farming methods, which lead to lack of self-reliance and ability to meet basic needs. The pedagogic techniques applied in these schools are thus frequently oriented towards providing students with skills in entrepreneurship and techniques for effective farming and utilization of the limited resources available to them. Furthermore, schools in poor rural contexts regularly engage students and parents to involve the surrounding community in managing local sustainability problems. In eco-schools in poor *urban* areas, the students are also described as living in constant hardship, lacking food security and the ability to meet other basic needs. The students are, like students in poor rural contexts, constructed as being in need of skills to fulfil their basic needs and become self-reliant in times of hardship and unemployment. The pedagogic techniques applied in these schools are thus also oriented at petty entrepreneurship and small-scale food-production for individual needs. Furthermore, the problem of waste is often perceived as acute in these neighbourhoods and seen to threaten the health of the students. The work with engaging the community is therefore regularly oriented towards changing the mindsets of community members in order to address such local sustainability problems.

In contrast to these poor contexts, students’ lives and local problems are perceived of very differently in rich contexts in South Africa and Sweden. Here, the students are typically described as living a mass-consumption lifestyle with access to resources, technology, and consumer choice. There are few local problems identified by school personnel in these schools, and the problems tend to be more abstract, existing somewhere else, among others. The skills that are seen as important for the students to acquire often revolve around undertaking marginal changes in their lifestyles and making “sustainably” sound consumer choices. The pedagogical techniques applied in these schools typically entail activities where students are to learn academic knowledge and skills in managing their consumption. These activities are often organized to be fun and creative, and

regularly involve an element of competition. Since there are few local problems identified as acute in this context, the local community is seldom addressed. Instead, community outreach typically includes awareness of problems located elsewhere and activities oriented at collecting materials for donations.

The article concludes that rich and poor student populations are targeted in very different ways in Eco-Schools, and that the programme adapts the interventions to the socio-economic living conditions of students. It is argued that this is problematic and that such adaptation to students' different "realities" risks falling into or even reproducing global patterns of inequality, if the political subtext of these "realities" is disregarded, and if local contexts are treated as isolated and given, rather than relational and produced.

5.4 Article 4

Title: Education for sustainable development among rich and poor: didactic responses to biopolitical differentiation.

Author: Bylund, L. (2023)

Published in: Environmental Education Research, (Published ahead of print)

This article addresses RQ4 (*What alternative didactical responses are there to biopolitical differentiation in ESD?*) and aims to elaborate on potential didactic responses to biopolitical differentiation in ESD, drawing on theories from Judith Butler, Jacques Rancière, and Michel Foucault.

The paper takes its starting point in previous biopolitical research on global ESD implementation – including research conducted for this thesis – and identifies three “problems” pertaining to biopolitical differentiation within this literature. The first identified “problem” is that biopolitically differentiated ESD seems to *establish hierarchies* between different forms of life. It is argued that ESD establishes a biopolitical hierarchy that carries a risk of feeding into a division of humans into affluent populations living a mass-consumption lifestyle, and poor populations destined for a life of struggles over basic needs. The second problem is that biopolitically differentiated ESD seems to *presuppose inequality*, which carries the risk of normalizing and reproducing inequality. It is argued that when ESD interventions are designed to “suit” different populations’ lives and lifestyles, the living conditions of these populations are taken as something stable and natural, and that ESD thus fails to challenge the life-chances gap between rich and poor populations. The third and final problem identified is that biopolitically

differentiated ESD appears to *assign different environmental subjectivities* and responsibilities to rich and poor populations. The argument is that when completely different interventions are designed, ESD seems to allow students to constitute themselves as responsible subjects in very different ways. These three identified problems are then elaborated on in the article by suggesting three didactical responses to these problematics.

The first didactical response draws on Butler's theories on precariousness and mourning, and addresses the problem that biopolitically differentiated ESD *establishes hierarchies* between populations. The response puts Butler's argument that all living beings are interdependent in the centre, and suggests an ESD practice that recognizes others and their losses. Such a practice can make use of the powerful feelings that one experiences when others' vulnerability has been exploited, and highlights how the loss of others is interconnected with one's own vulnerability. Furthermore, this didactical response acknowledges that not all humans are equally vulnerable and suggests that more attention must be paid in ESD to how global structures, as well as local practices, are complicit in creating an unequal distribution of precariousness. This means avoiding seeing the local context as isolated and instead carefully studying the relations between the students' own context and others' contexts, and how their own way of life is affecting or being affected by other populations' lives and lifestyles. Finally, it is argued that practices of mourning and grievability can allow for students to mourn the lifestyles they must abandon if the goal of a more sustainable world is to be reached. This is a suggestion that rejects a swift turn to acting and instead advocates staying in the process of grief, which is argued to be a prerequisite for actual transformation.

The second didactical response addresses the problem of a presupposition of inequality in biopolitically differentiated ESD, through the work of Rancière. This response adopts Rancière's ideas of taking a starting point in equal intelligence. In ESD, this means that instead of seeing rich and poor populations as suitable for different interventions, a didactic practice is suggested that verifies that all students have the capacity to think, speak, and act as equals, and that they have the same capacity to use their intelligence in communication with others. This means that a perceived inequality in intelligence between teacher and students, manifested in the need for endless explications, is also challenged. Such a presupposition of equality in ESD could therefore be built around the idea that all students should be constantly encouraged to use their intelligence and to bring forward their ideas about, and views on, sustainability issues and possible alternative futures. The

teacher's main task in such a didactic approach is thus not to explicate, but rather to encourage students to learn, act, and think for themselves.

The third and final didactical response is informed by Foucault's thinking on ethics and self-formation, and addresses the problem of differentiated environmental subjectivities assigned to rich and poor populations in ESD. Foucault's writing on ethics took its point of departure in practices in ancient Greece oriented towards caring for the self and applying technologies of the self. The didactical response drawing on these writings suggests that such technologies might be useful to consider if students are to challenge pre-determined subjectivities in ESD. This could entail the practice of self-writing, involving constant reflections on how sustainability related matters students have heard or read about are related to actions in their everyday life. This includes mapping out what the students believe to be true in relation to environmental issues, but also how the students can conduct themselves ethically by critically elaborating on what precepts to follow and deciding upon a certain mode of being and acting. Another technique suggested is the practice of truth-telling, which is a way for students to practise public criticism and where the truths produced by students are to be spoken out and to be listened to by others.

These three didactical responses are derived from very different theories, and the article does not aim to synthesize them into a general didactical approach that responds to problems associated with biopolitical differentiation in ESD. Rather the didactical responses offer conceptual and practical tools that can be further considered or tried out by teachers in different ESD practices or further elaborated on in future ESE research.

6. Discussion

Through the four articles, this compilation thesis has problematized and explored educational differentiation between rich and poor populations in the global implementation of ESD from a didactical perspective. In doing so, it has engaged with the following research questions: How can didactic adaptation of teaching and subject matter to different student populations be understood in relation to government, differentiation, and inequality?, How does global ESD policy handle the different living conditions and lifestyles of rich and poor populations?, How is global ESD implemented in relation to rich and poor student populations and what biopolitical rationalities and techniques are put into play in these processes?, What alternative didactical responses are there to biopolitical differentiation in ESD?

This concluding chapter summarizes and discusses some of the main findings of the thesis in relation to previous didactical and biopolitical scholarship. The chapter is organised as follows: The first section engages with didactics and biopolitical differentiation and relates mainly to the problematics put forth in Article 1. The second section discusses biopolitical differentiation in global ESD policy and practice as shown in Articles 2 and 3. The third section discusses the didactical responses to biopolitical differentiation suggested mainly in Article 4, but also in the other articles. The fourth and final section addresses the limitations of the thesis and suggests considerations for future research.

6.1 Didactics and biopolitical differentiation

This thesis has problematized educational differentiation on group level by engaging with the didactic *who?*-question; understood as a governing technique that can be applied to manage difference between students, but also a technique that carries the risk of (re)producing societal inequalities through biopolitical differentiation. The didactic *who?*-question seems to be more explicitly articulated in recent years (see Article 1) and it is often discussed in relation to individual students or the particular group of students that is addressed in teaching. In this section, the importance of handling the *who?*-question critically by acknowledging

its relational dimension, and including it as a vital part of didactical analysis, is discussed.

The *who?*-question is an important part of didactical analyses, either by being explicitly articulated or by being integrated into the core questions of didactics (i.e. *what?*, *how?* and *why?*), since answering these questions often entails considering who the students are and what educational needs they have. For example, in Wickman et al.'s (2018) overview of didactic models, it is claimed that “the choice of subject matter content and teaching methods must always be made with a certain group of students in mind”, and the authors go on to formulate the didactic questions as follows: What should the students learn? How should they learn this content?, and Why this content and these methods *for these students?* (Wickman et al., 2018, p. 241, my translation and emphasis). Thus, in this overview, it becomes evident that a didactic analysis of teaching involves adaptations to some characteristics of the students, and it is arguably hard to imagine an analysis that does not include this dimension. Wickman et al.'s suggestion can be seen as typical of how such analyses are conducted since it follows the classic didactic analysis of Klafki (1995), in that it focuses on the present and future needs of the particular group of students that are targeted in teaching and is therefore classroom oriented (see Article 1 and Chapter 1). This is also in line with the tradition of subject didactics, focusing on making subject matter accessible and relevant to particular student groups through teaching (e.g. Blanck, 2023, p. 55), and which has, according to Gundem, “brought didactics back to the content and classroom” (Gundem, 2011, cited in Osbeck, Ingerman & Claesson, 2018, p. 11). Thus, in didactical analyses, the *who?*-question can be argued to be of great importance - whether it is explicitly articulated or integrated within the core questions - and it is first and foremost oriented at a particular group of students within the teacher's own classroom. Such a didactic analysis can be seen to have benefits, since it takes the needs of the students seriously and directs the teaching towards subject matter and teaching methods deemed relevant for them. However, a practice/classroom-oriented didactic analysis can also be argued to risk overlooking the relations between the specific targeted group of students and other groups in society, that is, it might exclude concerns related to wider societal patterns of inequality, and it is in relation to this problematic that this thesis makes a contribution by problematizing the *who?*-question's relational aspects at group and societal level.

By connecting the *who?*-question to biopolitical theory and discussions on differentiation at group level, using Eikland and Ohna's (2022) wider definition of the term (see Section 2.1 and Article 1), it is possible to add important layers to

the more classical didactical analyses exemplified above. As argued in Article 1, the didactic *who?*-question can be understood as a mundane tool to handle difference but it can also slip into a biopolitics of inequality that constructs and prepares different student populations for different futures in accordance with assumptions made about their lives and lifestyles. These are important findings to consider if one thinks that education should not only be concerned with the individuals occupying various classrooms, but also with addressing and resisting inequalities at a structural level. In line with this argument, I would suggest that by understanding the *who?*-question as a biopolitical governing technique with differentiating effects, and by allowing it to be explicitly articulated in future didactical models and analyses, the *who?*-question can function to illuminate unequal relations and help to avoid seeing the local practice as isolated. This could, for instance, mean that a version of the main Therbornian question presented in Article 1 - *Does educational adaptation to various students' (presumed) life circumstances and lived experiences reflect a difference or an inequality?* – were to be added to didactical analyses, such as Wickman et al.'s questions above. It would allow for a didactical analysis that is both centred on the students' development and also takes the relationships between different constructed groups of people into consideration. This involves thinking carefully about how the subject matter selected for a particular group of students represents an adaptation to difference or if there is a risk of (re)producing unequal societal patterns. It also means that the inequalities separating different student populations are understood as relational and produced, and that didactical analyses have an important role to play in bringing these relations to light.

In this way, the results from Article 1 might be useful to consider in discussions concerning the risk that differentiation is reduced to an instrumental tool for teaching, where teaching is seen as existing in a vacuum (Eikland & Ohna, 2022), and to different understandings of didactics as pertaining mainly to the level of classrooms or whether it has broader structural applications (e.g. Gudem, 2000; Osbeck, Ingerman & Claesson, 2018, p. 12). In this thesis, the focus has been on differentiation at group and structural level, and it is argued that didactics and didactical analyses should include these perspectives in order to avoid thinking about teaching without connections to broader societal structures. This is especially important in the subject-matter area of ESD, since it is shown in this thesis to have strong differentiating components, dividing populations in accordance with their income-level and risking reproducing the life-chance divide between rich and poor populations.

6.2 The biopolitics of global ESD

Drawing on biopolitical theory, the thesis has engaged critically with how different student populations are governed in global ESD, and empirically explored how ESD is implemented in policy and practice in relation to rich and poor populations.

In previous literature on global implementation of ESD, there have been different positions concerning whether ESD has homogenizing or differentiating effects (see Section 2.2). This thesis empirically explores Hellberg and Knutsson's hypothesis that global ESD implementation has differentiating effects, and that this differentiation follows a global pattern of distinctions between different populations that goes beyond local variation – i.e. that rich and poor populations are educated to become sustainable in very different ways. The findings of the thesis show how the global policy arrangement *ESD for 2030* proposes that rich and poor groups of students should be targeted with different forms of ESD, where poor populations are constructed as in need of only basic ESD. The analysis also demonstrates how notions of transformative pedagogy, community, and the individual, assume the functions of biopolitical techniques in *ESD for 2030* (see Article 2). Furthermore, the findings show how the world's largest ESD programme, Eco-Schools, is adapted to suit the lives and lifestyles of rich and poor. The programme operates through the same basic steps, but the “problems” to be addressed, and the subject matter and teaching methods used, are left to individual schools to decide upon, in order for ESD to be adjusted to “sustainability problems” located in the local community (see Article 3). In sum, the effect of this adaptation leads to ESD practices that assign different lives, lifestyles, and subjectivities to rich and poor populations, which follows a biopolitical pattern of distinctions. This has been argued in the thesis to be problematic, since such differentiation risks sustaining inequality if this inequality is treated as something natural and stable instead of produced and relational. This section discusses the problem of a biopolitically differentiated global ESD, first in relation to Duffield's work (see Section 2.3) on division between populations and then in relation to Foucault's thinking around norms and normalization (Foucault, 2007).

6.2.1 Governing populations through ESD

In Hellberg and Knutsson's (2018a, 2018b) framework for exploring global ESD implementation biopolitically, Mark Duffield's (2007, 2010) work is stated to be

seminal, but it is also argued that the claims made by Duffield need to be further qualified through empirical research. Although Duffield's work is within the field of international relations and development studies, the arguments put forth by Duffield are relevant in relation to the empirical findings of this thesis since his work draws on biopolitical theory and focuses on how NGOs implement sustainable development in poor contexts.

The national operators of Eco-Schools are NGOs, and in the poor contexts explored in this thesis, they focus on projects that can be seen to emphasize the “development” part of the concept of “sustainable development”. For instance, in poor contexts in Rwanda, Uganda, and South Africa, the “problems” identified, and the didactical projects undertaken, are typically focused on how the students and communities can become self-sustaining in food and other basic needs in order to support their livelihood (see Article 3). Duffield argues that since sustainable development has entered the development and aid debate, aid has been primarily organized by NGOs and the promoted projects have often revolved around participative community-level self-reliance. This means that the earlier idea of state-led development, where poor countries were to pass through various stages and in the end resemble high-income countries, has been replaced by the idea that poor populations are to live within the limits of their own powers of self-reliance. Such a move means, according to Duffield (2007), that the burden of supporting life shifts from states to poor populations themselves, and that poor people are governed to become self-reliant entrepreneurs “operating at the level of household, community and basic needs” (p. 69). Duffield contends that “rather than reducing the life-chance gap between the developed and underdeveloped worlds, sustainable development is better understood as a means of containing the latter” (p. 68).

In relation to the findings of the thesis, several of the points made by Duffield are worth pondering. The resemblance between Duffield's description of how “sustainable development” operates in relation to poor populations, and what goes on in the implementation of ESD at the local level, is striking. In Article 3, it is shown that poor populations are addressed through Eco-Schools as being in need of becoming self-reliant, small-scale entrepreneurs who collect waste-material for petty production and who dig up their own backyard in order to grow vegetables in times of need. Although many of these educational activities are declared to be “best practices” by the national operators, it is reasonable to assume that the living conditions produced by these interventions would not be deemed acceptable for the majority of the people living in richer contexts (see also Knutsson, 2021).

Rather, this points to the divide described by Duffield where poor populations are to settle for less without ever getting the opportunity to enjoy the security of state welfare systems that are (still) in place in many rich countries in the Global North. To become “sustainable” for these poor populations is thus, for most students, associated with staying in their local community and trying to better the conditions there by using the limited means available. Furthermore, Duffield’s description of how responsibility is transferred from state to individuals and communities is highly visible within both *ESD for 2030* and Eco-Schools. The individual is to take on responsibility, not only for their own subsistence, but also to encourage the local community to take on different techniques to improve their lives and local environment. As shown in Article 3, such responsibility for the community is not as prominent in eco-schools in richer contexts, which may be seen as problematic. How can poor groups of students be expected to take responsibility for changing conduct within their community when these groups of students are probably the ones with least access to the means necessary for such change? It could be argued that it is not reasonable to demand of poor students to take responsibility for bringing about far-reaching changes in their communities, while richer students do not have to bear such expectations. This is especially so since it is within the richer communities, and indeed in the broader societal structures, that far-reaching changes in lifestyles and consumption patterns are needed if a climate catastrophe is to be avoided (e.g. Hornborg, 2021).

Although it would be unfair to claim that the gulf separating rich and poor populations lifestyles is deliberately sustained through ESD implementation, it seems reasonable to suggest that global ESD at least fails to challenge this divide. In the articles, it has been argued that adaptation of ESD to local contexts is often treated as unproblematic and that the inequality separating rich and poor populations is treated as something natural or normal to which ESD is adapted. Although it seems unlikely that ESD, or other educational interventions for that matter, alone can achieve a sustainable world (other far-reaching changes in governance and corporate structures are fundamental), it is important that ESD does not normalize inequality by separating rich and poor communities. However, such normalization is part of the rationality of biopolitical government of populations, which brings us to the next sub-section.

6.2.2 Normalizing inequality through biopolitically differentiated ESD

As shown in the thesis and as discussed above, global ESD policy and practice adapts to “problems” located or constructed within the local community, allowing for rich and poor populations to be targeted differently. One example of the rationality that local context is the starting point of ESD interventions presented itself when I carried out an interview (not included in this thesis) with a representative from the global head office of Eco-Schools¹⁴. The representative explained that Eco-Schools do not care about the *what?*, but only focus on *how?*, and that the question of what to teach is left to schools in the local contexts to decide upon. Thus, the seven steps of the programme guide the implementation but there is no subject-matter content that is deemed relevant for all students to learn.

If we apply biopolitical scholarship to this rationality, it can be seen as a typical way of governing within contemporary societies. As stated in the thesis (see Article 2 and Chapter 3), biopolitics is a form of power that supplements other forms of power, i.e. sovereignty and discipline. These forms of power follow different modes of operation, and in discipline, norms are designed and established to form an optimal model that distinguishes the normal from the abnormal, constructed to achieve certain results by trying to get peoples’ conduct to conform to this model. Foucault calls this mode of operating through pre-defined norms, *normation* (Foucault, 2007, p. 57). Biopolitics on the other hand does not assume a prescriptive norm but takes the empirical norm as a starting point. Rather than adjusting reality to a pre-defined norm, the norm is formed through observations and statistics. What is considered “normal” and “abnormal” is thus derived from “studies of normalities” and is, according to Foucault, a matter of *normalization* rather than *normation*, in the strict sense of the word (Foucault, 2007, p. 63; see also Lemke, 2011, pp. 47-48). As the plural form “normalities” above suggests, what is normal in one place is not normal in other places. Rather, living conditions and potential risks are not the same for “all” and differ between different places and between what Foucault terms “milieus” (Foucault, 2007, pp. 61-63). Thus, when the “normal” is derived from knowledges and statistics about populations living in different areas or milieus, the normal differs between contexts and consists of “differential normalities” (Foucault, 2007, p. 63). In relation to the findings of this

¹⁴ Studies of the global level of Eco-Schools will be included in a forthcoming book written within the wider research project.

thesis, and as will be elaborated below, this is important in relation to how schools in different communities construct problems.

In ESD, the community is one of the main techniques or zones for governing “sustainable” conduct (see Articles 2 and 3). When the local context and the community surrounding the students is taken as a starting point for identifying “problems”, the different local contexts seem to fall into such “differential normalities”. In schools in the big cities of South Africa, for example, there was no mention by the interviewees of the inequalities separating township schools and the mansion-like schools just a couple of kilometres apart. These different contexts did not seem to be treated as interrelated but were rather treated as different “milieus” with their own local “problems” and normalities. When ESD adapts to such vast differences in living conditions and lifestyles (as shown in Article 3), without focusing on the interrelation between these contexts, these differences are treated as something normal and not something that can be abolished or resisted (see Article 1). Rather, the biopolitical rationality of different normalities derived from empirical norms (consisting of more or less solid knowledge) allows for differentiation where it is normal that some students have problems with covering their basic nutritional needs while others have problems with excessive food wastage or heating their swimming pools in a “sustainable” way.

It could be argued that such normalization of unequal lifestyles is something that should be challenged in ESD, and maybe Foucault’s distinction between normation and normalization can be helpful when thinking about these problematics. Instead of establishing norms and constructing “problems” out of local empirical observations (and assumptions), there could be pre-established norms derived from other sources, used in ESD. One such suggestion could be to follow Therborn’s (2013) conceptualization of equality/inequality where he follows a capability approach¹⁵ (see Article 1). This means that the norm should be that all humans, regardless of living conditions in their local contexts, should have equal ability to function as a human being with equal opportunities for self-development. To reach such a goal, ESD policy and practice should aim to eradicate unequal life-chances in health and longevity and excessively unequal distribution of resources, income, and wealth. Although it seems unlikely that such radical change is possible through ESD, a starting point could be to discuss how relations between communities uphold patterns of global and within-nation

¹⁵ In his conceptualization of inequality, Therborn takes inspiration from Amartya Sen and Martha Nussbaum.

inequalities. Instead of normalizing unequally distributed living conditions and life-chances existing in different local contexts, ESD could instead follow a norm of equality by constantly highlighting these aspects and treat inequality as being abnormal¹⁶. Although I am hesitant to create a list of “proper” subject-matter content suitable for all students regardless of context, putting forward such a critical approach in ESD would be one way of challenging the rationality that everything except teaching methods is up to isolated local contexts to decide upon. Following such a common norm, however, does not mean that the “realities” of different local contexts should be overlooked. It is, for example, important to recognize research that shows how (Western) global agendas in education tend to dismiss local knowledge by encouraging young people to aspire for futures that are out of reach for most, thereby producing populations that are surplus to the capitalist economy (e.g. Ansell et al., 2020). It is probably these “realities” that the interviewed teachers address when they explain why they focus on skills for basic needs in schools located in poor communities (see Article 3). Thus, the above argument does not mean that all schools should use the same approaches irrespective of context, but rather that the normalization of inequalities should be critically addressed and possibly resisted in ESD practices.

How this problematic of normalization of inequalities between local contexts can be handled didactically in ESD has been elaborated on in several ways in this thesis, and in the next section, these different suggestions are discussed.

6.3 A reflection on didactic alternatives to biopolitical differentiation

The thesis has elaborated on how biopolitical differentiation can be challenged didactically in ESD, through several suggested didactical responses. These responses have interconnections as well as differences and includes suggestion on handing the *who?*-question over to the students themselves (Article 1), affirmative differentiation (Article 2), and didactical responses drawing on Butler’s, Rancière’s and Foucault’s theories (Article 4). Although the thesis does not aim to suggest some overall conclusion on how biopolitical differentiation in global ESD is to be challenged in all didactical practices (as argued in Article 4), this section emphasizes three aspects that are important to reflect upon.

¹⁶ An example of such a rare occasion in ESD activities, when the normality of inequality is turned into something abnormal, is found in Knutsson (2020).

First, given the findings of this thesis, it is important to once again state that local contexts, “realities”, or communities should not be treated as given and isolated in ESD, but rather as produced and relational (see also Knutsson, 2020). This argument has been put forward throughout the thesis and must be a key didactical strategy in ESD practices if the inequalities in lifestyles and life-chances existing between populations living in these different “realities” are to be scrutinized and resisted. How this is to be made didactically relevant in practice is up to actors in the local context to elaborate further, but several suggestions have been proposed in this thesis, for example: handing the *who?*-question over to the students themselves (Article 1), and allowing students to examine how global power structures and the local practices they inhabit create unequally distributed vulnerability (Article 4). Although these different suggestions draw on different theories, I would like to stress that regardless of how the problem is framed and what didactical approach is used, the main problem remains: that ESD seems to treat inequalities between different communities and populations as depoliticized (Knutsson, 2020, 2021). This is something that needs to be further addressed in ESD if it is to challenge global as well as within-nation inequalities. This means that the relationships that exist between contexts must be foregrounded in critically oriented ESD practices.

In relation to the findings of Article 3 — that eco-schools in affluent communities have problems locating and addressing local problems — combined with the fact that rich populations are responsible for the vast majority of accumulated carbon emissions, it seems reasonable to suggest that more attention needs to be directed towards the effects of overconsumption. This includes involving students in discussions on unequal exchange and how excessive consumption in one place is dependent on the use of land, people’s time, and resources elsewhere, which in turn affects others’ opportunities and life chances. As shown in the thesis, *ESD for 2030* zooms in on poor populations and several Eco-Schools activities are oriented towards providing poor populations with basic needs. Focusing on providing basic needs, and discussions on where to draw the baseline, are certainly important, but in a relational didactical practice, it seems instrumental to also focus on upper limits in the form of overconsumption and its effects. Scrutinizing both one’s own and the local community’s consumption patterns, and its effect on other humans and non-humans, might be one way of engaging students to take actual action in more affluent schools. This is important, especially since these schools typically locate problems elsewhere and struggle to find meaningful projects relevant for their own community (Article 3). Such a

focus would possibly allow students to problematize and move beyond dominant narratives of (sustainable) development that tend to lead to superficial engagement in charity and awareness campaigns (see Pashby & Sund, 2020), common in affluent eco-schools.

Second, didactical approaches should use differentiation with care. As stated above, it is important to recognize that wealthier populations have contributed most to the emissions causing global warming (Hornborg, 2021; Malm & Hornborg, 2014), and that it is therefore not reasonable to responsabilize rich and poor populations in the same way. This argument might be seen to advocate didactical responses adopting an affirmative differentiation, as suggested in the thesis. This includes the suggestion in Article 2 that students in wealthy communities are to criticize unsustainable consumption patterns and unlearn their privileges whilst students in poor communities are to acquire critical skills to scrutinize power relations and unequal distribution of resources. Such affirmative differentiation is also implied in Article 4 in the elaboration of how Butler's concept of vulnerability can inform ESD practice, as it is suggested that students should examine their own consumption patterns and complicity in others' suffering, which is only applicable in rich, high-consumption contexts. These suggestions on affirmative differentiation are important to consider in didactical practices, but I do want to stress that with such an approach there is a risk of falling into the form of problematic emancipation that Rancière cautions against (Article 4; Rancière, 1991, 1995).

Suggestions that poor populations should be targeted with a didactical approach allowing them to explore power relations, can be seen to fall into a presupposition that poor people are not fully aware of the predicaments in which they find themselves. Instead, in Rancièrean terms, it can be interpreted as if poor people need an emancipator who "lifts the veil of their ignorance". This is in line with Biesta's (2017)¹⁷ critique of what he terms "the new logic of emancipation". According to this logic, it is because of the way power works on our consciousness that we are unable to see how power works upon our consciousness; and for emancipation to be achieved, it is necessary that "someone else, whose consciousness is not subjected to the workings of power, needs to provide us with an account of our objective condition" (Biesta, 2017, p. 55). Thus, emancipation can only happen if someone else initiates an intervention from the outside and emancipation is built around an assumed inequality between the emancipator and

¹⁷ According to Biesta, the "logic" behind this way of understanding emancipation takes a starting point in Friedrich Engels' notion of "false consciousness" (2017, p. 55).

the one being emancipated. This assumed inequality will only be resolved in the future when emancipation has been brought about (Biesta, 2017). Hence, if one agrees with the problems of presupposing inequality (see Article 4), it is important to question one's didactic practices if an affirmative differentiation is adopted. Even if teaching is planned and implemented with the best intentions – in this case that poor student populations are to analyse power relations that might have negative effects on them – Rancière's ideas can work as a check against falling into practices that are based upon an assumed inequality, and that projects equality as something only belonging to a distant future.

Third, some of the didactical responses might come across as, and probably are, somewhat detached from the societal conditions existing in different contexts, and from what it is possible to achieve in local ESD practices. For example, the suggestion that all students should engage in self-reflection and apply technologies of the self might not be possible, nor appropriate, in all places in the world. The idea that poor students in, for example, schools in South African urban townships are to write notebooks reflecting on their environmental conduct might come across as naïve. In the interviews conducted in several of the visited schools in the sample, the students are described as living in communities that are marked by severe problems with drug abuse, orphanhood, criminality, and failing societal services for electricity and water delivery, and thus probably have other more urgent things to attend to in their lives than, for example, scrutinizing their consumption patterns. Additionally, these populations do not play a considerable part in producing the urgent environmental problems of, for example, the climate crisis and eradication of life habitats. Thus, these didactical responses should not be read as “methods” to be uncritically applied. Rather, they are suggestions that can be considered and elaborated on by teachers and used to show how different populations are differently complicit in the present acceleration of extinction, habitat destruction, and climate instability, which is unlike any in human history. The responses are thus suggestions that place the sustainability/inequality nexus at the centre of ESD practices. Bringing this nexus to the fore is important, because, as Affifi and Christie (2019) contend in their discussion around experiencing loss in ESE, “death is all around us and the future is precarious. And yet, at least for those not suffering its effects, life goes on” (p. 1143).

6.4 The studies limitations and implications for future research

This sub-section presents limitations of the study and implications for future research. First, limitations connected to a Foucauldian analysis as well as other limitations related to research design are presented, followed by some brief suggestions regarding future research.

6.4.1 Limitations of the study

A successful Foucauldian analysis of government puts emphasis on how government operates beyond the limits of state power by looking at how more subtle methods of power are exercised through a network of institutions, policies, practices, procedures, and techniques, acting to regulate conduct. This means that the rationalities of government are focused on, but also that the techniques used to govern, and the effects of government, are explored (e.g. Dean, 2010; Rose, 1999; see also Hellberg & Knutsson, 2018a, 2018b). A Foucauldian analysis is not primarily directed at “why-questions” that try to uncover hidden meanings or underlying power structures but focuses on the “how-question” of government, analysing how government operates within mundane practices and techniques of government (Miller & Rose, 2008; Rose, 1999). Such an analysis has its limitations and, in the following, some of these limitations will be discussed.

The first limitation relates to how Foucault conceptualizes power as constant struggles existing within power relations. This way of understanding power has been critiqued as contributing to a view of government as both programmatic and deliberate, but at the same time lacking a specific point of power concentration with specific subjects employing the force (e.g. Rodin, 2017). Power relations presuppose struggle, and in a Foucauldian analysis it can be asked “who is doing the struggle and against whom?” (Miller cited in Rodin, 2017, p. 15). The rejection of a centre of power might thus lead to a “shortage of explanatory propositions in the analysis of social-political phenomena and processes” and a focus primarily on description that tends to exclude the operation of overarching structures of power (Rodin, 2017, p. 15). In this thesis, both policy discourse and mundane ESD practices in different schools are explored. As reflected in the research questions, the focus is on the how-questions of government and the contribution of the thesis is thus limited to an exploration of how student populations are constructed as suitable for different ESD interventions and how they are (claimed) to be

addressed in different practices. The analysis is not oriented at decoding or interpreting interviews or policy documents to discover hidden motives or rationalities; to reveal the “real” underlying objectives. The analysis of empirical material is rather what Rose (1999) describes as “an empiricism on the surface” that identifies differences and similarities in what is being expressed by different actors (p. 57). Consequently, questions about the connections between biopolitical differentiation in ESD and wider political and economic structures of power are not at the centre of the analysis in the thesis.

A second limitation — connected to the above-mentioned view of government as operating beyond the limits of state power — is the lack of vertical comparison that includes the national or state level of scale. Although one of the rationalities guiding the design of the study has been to conduct research that does not take the nation state as the primary unit of analysis (see Section 3.2.2), ignoring this level also means that important aspects of the implementation of ESD might be disregarded. Joseph (2010) discusses the limits of applying theories of neoliberal governmentality and biopolitics in research that takes an interest in the international domain¹⁸. Foucault’s theories are derived from the history of Western civilisation, and colonial aspects are for most parts left aside. This might raise questions about whether, or to what extent, Foucauldian theory can be helpful in understanding non-Western contexts, or countries that are not considered to be (neo)liberal (*ibid.*; see also Rodin, 2017). The thesis focuses on the global policy level and ESD practices in various local contexts and thereby excludes the national level, both more broadly in how the history and politics of the state might affect ESD policy and implementation, but also more specifically, in how the national operators govern or influence local eco-schools practices in each country. In relation to this thesis, post-colonial perspectives are not foregrounded¹⁹, nor how the specific country contexts and histories influences how global ESD policy and ideas are implemented, altered, or resisted. For instance, in an interview with a representative of the national operator of Eco-Schools in South Africa (not included in the thesis), the representative explained how they regularly made changes in the materials provided by the global office, since they thought that the material was Eurocentric and primarily designed to be used in rich contexts in the

¹⁸ It is important to note that several counterarguments have been presented against Joseph’s critique of applying Foucauldian theory in research on the international domain. See for instance Death (2013) and Knutsson (2014).

¹⁹ Although a post-colonial or decolonial lens is not applied in this thesis, I do want to stress the importance of such perspectives, especially in relation to the life-chance divide between rich and poor that is foregrounded in this thesis, as discussed by Sund and Pashby (2020, p. 166).

Global North. An analysis of such alterations of the programme, or resistance to government, located at the national level, is lacking in the thesis, which might limit the understanding of how global ESD is implemented and adapted to suit rich and poor populations.

A third limitation of the thesis concerns the focus on economic inequality and the division into categories of rich and poor populations. As stated in Article 3, dividing schools into “rich” and “poor” builds on a dichotomy that might be seen as crude. The contexts in which schools are located are rather positioned in a continuum of different socio-economic settings, and such a dichotomy may create a risk of disregarding within-nation difference. For example, all Swedish schools in the sample are categorized as “rich”, although there are vast differences between these settings in terms of relative socio-economic status. Nevertheless, for the purpose of exploring the global implementation of ESD in this thesis, these binary categories were used. The limitations of such a categorization when conducting a fine-grained analysis should however be acknowledged. Additionally, focusing on economic inequality puts other important perspectives into the background. Inequalities and aspects pertaining to issues of, for example, ethnicity and gender are not explored explicitly in the thesis and the results do not take these matters into consideration to the same extent as those related to economic inequality. For example, different approaches to ESD in local settings could be influenced by cultural expectations or definitions of individual and societal roles in different cultures. Valuing group identity over individual identity might be more common in some cultures, whereas individuality and independence might be more valued in other societies. In relation to students’ backgrounds, the thesis does not differentiate between schools targeting students with different religious background in Uganda or the ethnic divide apparent in schools in South Africa. Furthermore, a gender perspective could have added additional depth to the analysis. In South Africa, for example, some schools only targeted girls, and although expectations about gendered behaviour might be an important factor that is considered by teachers when they adapt ESD to particular groups of students²⁰, this is not included in the analysis. Overall, adding these perspectives might well have given additional nuances to the results of the thesis. However, it is not obvious that it would have altered the conclusions of the thesis, given that some

²⁰ One example of the gendered dimension of ESD is provided by Blenkinsop et al. (2018), who showed how cis-gendered boys changed their language and behaviour as they grew older, from “animal lover” to “ecomodern masculinities” adapted to the dominant “malestream” culture.

of these important perspectives, for instance the ethnic divisions in South Africa, also follow the overall pattern of socio-economic divisions.

The fourth limitation discussed here concerns the selection of contexts, programmes, and participants in the Eco-Schools study. Although the aim is oriented towards exploring implementation of ESD in different socio-economic and geographical contexts, the study is limited to one ESD programme in one European and three African countries. Thus, the study cannot be seen to represent the totality of global ESD initiatives and it is not possible to draw conclusions about global patterns from this isolated study. However, since the programme has been declared a key partner and world leader within the field of ESD by UNESCO (Eco-Schools, 2019), it is reasonable to suggest that it represents a highly successful initiative that works in line with the overall ideas and rationalities of UNESCO. Furthermore, and as argued above (see also Article 3), the conclusion that populations are educated in very different ways that follow a biopolitical pattern of distinctions does not emanate solely from the Eco-Schools study but is built around the totality of studies within the wider research project. Finally, the selection of participants limits the study to exploring only the rationalities and techniques of government. Since the actual target of government – the students – are not included in the study, it does not include the effects of government. This means that the study is limited to exploring assigned subjectivities which are not to be conflated with actual subjectivities and the study thus excludes the important aspect of how subjects resist being governed in particular ways.

6.4.2 Considerations for future research

This sub-section briefly presents some suggestions for future research connected to the discussion in the different sections above.

In relation to the discussion on didactics and biopolitical differentiation, the suggested addition of the societal and relational aspect of the who?-question to didactical analysis could be further explored. This could include research on how such an inclusion of the relational aspect, based on Therborn's distinction between difference and inequality, affects teachers planning and teaching in the classroom, i.e. how an explicit articulation of the who?-question, added to teachers' didactical analysis, affects the ways in which teachers think about and handle adaptations of teaching materials and teaching methods to their specific groups of students.

The next suggested area for future research relates to the discussion around biopolitical differentiation in ESD policy and practice. As stated in the limitations,

this thesis is limited to exploring economic inequality at global policy level and in local contexts. Thus, future (biopolitical) research could bring in new perspectives that include how the national level of scale affects local implementation, or how other forms of biopolitical divisions pertaining to ethnicity, gender, or other inequalities, affect how different populations are targeted in global ESD. Such studies would allow for a more fine-grained analysis than the one made possible through the applied methodology in this thesis.

The final suggestions for future research relate to the discussion on didactical responses. The findings of the thesis show how ESD practices targeting poor populations are more concrete, whilst ESD practices targeting affluent populations are more abstract and tend to promote only marginal behavioural changes within current mass-consumption lifestyles. Given that it is an affluent minority of the world's population that is responsible for the majority of emissions causing the climate crisis, it is reasonable to suggest that it is the richer populations that need to make substantial changes in their consumption patterns and ways of life. Therefore, future research efforts should preferably be oriented towards exploring how novel didactic practices targeting populations living excessive mass-consumption lifestyles, can be developed and both be made more concrete, but also allow for critique of the political economy that promotes such lifestyles. How ESD can contribute to such a development can be discussed, and in this thesis, several didactical responses have been suggested that could be relevant to explore further. This could include research that explores how the different suggested responses could be implemented in different ESD practices and among different age groups. It would also be relevant to develop these suggestions further in collaboration with educators and explore the “effects” of such didactical practices. Here, inspiration can be drawn from previous research that initiates collaborative practices which critically engage with values, conflicts and ethical considerations in ESE and global citizenship teaching (e.g. Sund & Pashby, 2018). One area that could be the target for future research is the development of new didactic practices of un-learning (see Article 2), since un-learning might have the potential to contribute to the transition from excessive mass consumption to sufficiency, and from extractivism to post-extractivism (see Tiostanova & Mignolo, 2012). Although there is emergent didactic scholarship exploring un-learning (e.g. Juelskjær, 2020; Zantvoort, 2021), additional knowledge is needed. This could include knowledge on present didactical ESD practices applying un-learning, and further elaboration on how such practices can be developed to critically interrogate the politics behind unequally distributed and differentiated lifestyles. This seems

like an urgent area for future studies given the findings of this thesis and the urgency of the global environmental and sustainability problems that the world is facing.

Svensk sammanfattning

Denna avhandling undersöker och problematiserar hur utbildning differentieras för att anpassas till olika grupper av elever. Mer specifikt fokuseras hur utbildning för hållbar utveckling (ESD²¹) implementeras globalt i relation till rika och fattiga elevpopulationer.

UNESCO är det FN-organ som haft ansvaret för implementeringen av ESD under de senaste årtiondena. Tre globala utbildningsprogram har genomförts och i den policydiskurs som omgärdat implementeringen av programmen framställs ESD som ett inkluderande projekt som förenar mänskligheten i en gemensam strävan mot en mer rättvis och hållbar värld. Frågor kan dock resas kring hur ESD policy och praktik hanterar de enorma socio-ekonomiska skillnader som finns mellan olika elevpopulationer. Är det möjligt att förena mänskligheten i en gemensam strävan eller förväntas fattiga och rika elever att bli ”hållbara” på olika sätt? Om utbildningen anpassas till olika elevgruppers inkomster, liv och livsstilar, riskerar ESD i så fall att normalisera, eller rent av reproducera, de ojämlika levnadsvillkor som skiljer fattiga och rika populationer åt?

Som en del av ett större forskningsprojekt²² inspirerat av foucadiansk biopolitisk teori, tar avhandlingen avstamp i ovanstående problematik och undersöker hur ESD implementeras i relation till olika elevpopulationer globalt, samt hur differentierad utbildning kan förstås utifrån didaktiska perspektiv. Avhandlingen bidrar till tidigare forskning främst på tre sätt. För det första bidrar avhandlingen till tidigare forskning om differentiering i utbildningssammanhang. Detta görs genom en problematisering av den didaktiska vem/vilka-frågan, som förstås som en styrningsteknik med biopolitiska dimensioner. Avhandlingens andra bidrag relaterar till diskussioner som förts inom forskning om miljö- och hållbarhetsundervisning kring huruvida global ESD implementering präglas av likriktning, eller om implementeringen i stället präglas av hög grad av anpassning till lokala kontexter. I relation till denna diskussion bidrar avhandlingen genom att

²¹ ESD är en akronym för “Education for sustainable development”. I Sverige används ofta akronymen UHU för “utbildning för hållbar utveckling” men i denna svenska summering av avhandlingen har den engelska akronymen behållits.

²² Avhandlingen skrivs inom projektet *Utbildning för hållbar utveckling i en ojämlik värld – Populationer, kunskap(er) och livsstilar* som är finansierat av Vetenskapsrådet (Vetenskapsrådet 2018–04029).

empiriskt undersöka ett tredje alternativ som föreslår att ESD visserligen präglas av hög grad av anpassning till lokala kontexter men att dessa anpassningar samtidigt följer ett globalt biopolitiskt mönster av distinktioner mellan fattiga och rika populationer. Det tredje och sista bidraget är kopplat till tidigare biopolitiska forskning inom miljö och hållbarhetsutbildning som uppmanar till empiriska studier av global ESD implementering, utförda i olika socio-ekonomiska och geografiska kontexter. Avhandling bidrar till denna forskning genom empiriska undersökningar genomförda i vitt skilda kontexter i länder med olika inkomstnivåer. Vidare diskuteras potentiella didaktiska svar på en sådan biopolitisk differentierad ESD.

Avhandlingen, som är en sammanläggningsavhandling bestående av fyra artiklar, erbjuder således didaktiska problematiseringar och empiriska exempel, och bidrar med kunskap om hur global ESD implementering, differentiering, och ojämlikhet hänger ihop.

Syfte och frågeställningar

Avhandlingens syfte är att undersöka och problematisera differentiering mellan rika och fattiga populationer i den global implementeringen av utbildning för hållbar utveckling utifrån ett didaktiskt perspektiv. Detta görs genom fyra artiklar som var och en adresserar följande forskningsfrågor:

- Hur kan didaktisk anpassning av undervisning och undervisningsinnehåll till olika elevpopulationer förstås i relation till styrning, differentiering och ojämlikhet?
- Hur hanterar global ESD policy olika levnadsvillkor och livsstilar bland rika och fattiga elevpopulationer?
- Hur implementeras ESD i relation till rika och fattiga elevpopulationer och vilka biopolitiska rationaliteter och tekniker är framträdande i processen?
- Vilka alternativa didaktiska svar kan finnas i relation till biopolitisk differentiering inom ESD?

Teori och metod

Avhandlingen utgår från Michel Foucaults arbeten om biopolitik (Foucault, 1998, 2003, 2007, 2008). Biopolitik refererar, i den foucauldianska traditionen, till en form av styrning som opererar på den kollektiva nivån av populationer och vars

mål är att optimera liv. För att möjliggöra detta måste de interventioner som genomförs anpassas till populationens liv och livsstilar, och biopolitiken opererar därför i ljuset av kunskap om de specifika livsvillkor som återfinns hos den population som är föremål för styrningen. Detta innebär att kunskap används för att möjliggöra effektiva interventioner, men innebär även ofrånkomligen att olika populationer adresseras på olika sätt. Biopolitiska interventioner, oavsett om det rör människors hälsa, säkerhet, utbildningsnivå eller annat, måste således differentiera mellan olika typer av liv och livsstilar.

I avhandlingen används ett teoretiskt och analytiskt ramverk, framtaget av Hellberg och Knutsson (2018a, 2018b) för att undersöka ESD utifrån biopolitisk teoribildning. Ramverket adresserar frågor om hur liv, populationer och subjekt blir föremål för styrning inom global ESD implementering och riktar fokus mot de biopolitiska rationaliteter och tekniker som sätts i spel när ESD packas upp i relation till populationer i olika socio-ekonomiska kontexter. Detta innefattar studier av hur olika elevpopulationer konstrueras som lämpliga för specifika ESD-interventioner, samt studier av pedagogiska tekniker som använder agensen hos ”fria” subjekt för att producera ansvarsfullt ”hållbart” handlande hos individer och lokalsamhällen.

I avhandlingen används teorin och ramverket genom att biopolitisk differentiering i implementeringen av ESD problematiseras, samt genom att didaktikens vem/vilka-fråga förstås som en styrningsteknik med biopolitiska dimensioner. Vidare följer avhandlingen ramverkets uppmaning att genomföra empiriska studier av hur ESD implementeras i relation till olika populationer, både i globala policydokument, och i vitt skilda lokala skolkontexter i länder med olika inkomstnivå. Detta görs dels genom en biopolitisk analys av UNESCO:s nuvarande ramverk för implementering av ESD, dels genom en studie av de rationaliteter och tekniker som kommer till uttryck när det globala utbildningsprogrammet *Eco-Schools* implementeras i sammanlagt 31 skolor i Rwanda, Sverige, Sydafrika och Uganda.

Artikel 1

De klassiska frågorna inom didaktiken är *vad*, *hur* och *varför*, men under senare år har vem/vilka-frågan kommit att bli alltmer uppmärksammasad.

I avhandlingens första artikel kopplas differentiering inom utbildning, foucaudiansk biopolitisk teori och didaktik samman genom en problematisering av den didaktiska vem/vilka-frågan. Artikelns har en argumentativ och teoretisk ansats, men ett exempel från *Eco-Schools* i Sverige och Uganda används för att

illustrera argumenten. Detta görs på två sätt: dels genom att diskutera vem/vilka-frågan som positionerad inom ett spänningsfält mellan erkännande av skillnad och reproduktion av ojämlikhet, dels genom att visa hur vem/vilka-frågan kan förstås som en biopolitisk styrningsteknik som involverar kunskap och antaganden om olika elevgruppers liv, livsstilar och framtida livsbanor. Således fokuserar artikeln på när vem/vilka-frågan riktas mot grupper av elever snarare än individer i klassrummet.

I problematiseringen av den didaktiska vem/vilka-frågan som positionerad i ett spänningsfält, relateras vem/vilka-frågan till en bredare diskussion om differentiering. Vanligt förekommande argument *för*- och *emot* differentiering inom didaktisk och pedagogisk forskning presenteras, och det föreslås att det finns goda argument för båda positionerna. Litteraturen som argumenterar *för* differentiering betonar ofta vikten av att anpassa utbildningen till elevernas upplevelser, kulturella bakgrund och referensramar för att göra ämnesinnehållet mer meningsfullt, samt motverka utbildning som förbiser minoritetslevers kulturer, historia och språk. Argument *mot* differentiering tar i stället utgångspunkt i social reproduktionen av samhälleliga mönster relaterade till klass, kön och etnicitet. Inom litteraturen argumenteras det för att elever med minoritets- och arbetarklassbakgrund ofta placeras i lågpresterande grupper eller utbildningar som inte förbereder för vidare studier. Således fokuserar argument för differentiering ofta på att hantera mångfald och skillnad mellan elever, medan argument mot differentiering i stället inriktas mot att motverka (re)produktion av ojämlikhet. De olika positionerna utgör grunden för artikelns argument att didaktikens vem/vilka-fråga kan förstås som positionerad i ett spänningsfält mellan skillnad och ojämlikhet. För att sätta detta spänningsfält i fokus används Göran Therborns teorier om (o)jämlighet för att föreslå ett antal "Therbornska frågor". Frågorna kan användas för att ge en indikation på om den differentierade utbildningen, som är resultatet av den ställda vem/vilka-frågan, tenderar att luta mot en didaktisk hantering av skillnad eller om den riskerar att reproducera ojämlikhet.

För att problematisera den didaktiska vem/vilka-frågan som en styrningsteknik, används foucaudiansk teori. Styrningstekniker syftar inom denna teoribildning på konkreta och vardagliga verktyg för att styra beteenden hos individer och grupper. I argumentationen i artikeln framställs vem/vilka-frågan som en styrningsteknik som vägleder lärares arbete när det gäller urval och organisation av undervisningsinnehåll utifrån vad som anses relevant för specifika elevgrupper. Detta arbete inkluderar att gruppera elever utifrån vissa egenskaper och att utarbeta lämpliga sätt att adressera dem för att optimera deras utbildning.

Således utgår vem/vilka-frågan från kunskaper och antaganden om olika elevgruppers liv, livsstilar, behov och framtida livsbanor när eleverna konstrueras som lämpliga för en viss undervisning samt visst ämnesinnehåll. Följaktligen kan vem/vilka-frågan förstås biopolitiskt, eftersom den dels kan uppfattas som en teknik för att optimera undervisning i enlighet med elevpopulationernas liv och behov, dels eftersom den gör det möjligt att differentiera mellan populationer.

Trots denna kritiska problematisering drar artikeln slutsatsen att det kan finnas en radikal potential i den didaktiska vem/vilka-frågan, under förutsättning att den överlämnas till eleverna och ger dem möjlighet att utforska relationerna mellan deras egna samhällen och andra samhällen, liksom relationerna mellan olika socialt konstruerade grupper av människor.

Artikel 2

I artikeln görs en biopolitisk läsning av UNESCO:s nuvarande globala ramverk för implementeringen av utbildning för hållbar utveckling, *ESD för 2030*. Tidigare forskning har lyft fram hur marginaliserade befolkningsgrupper och lokalt förankrad kunskap exkluderas i ESD-policy. I denna artikel riktas i stället uppmärksamheten mot det sätt på vilket fattiga befolkningsgrupper *inkluderas* samt hur kontextuella skillnader *erkänns* inom *ESD för 2030*. Analysen sker utifrån biopolitisk teori och bygger på det teoretiska och metodologiska ramverk som utvecklats av Hellberg och Knutsson (2018a, 2018b), som riktar fokus mot biopolitiska rationaliteter och tekniker.

Analysen visar att bevarande av liv är en central logik i *ESD för 2030*. Radikala förändringar i vårt sätt att leva framhålls som nödvändiga för att få till stånd en hållbar framtid, och utbildning uppges vara centralt för att möjliggöra denna övergång. Emellertid visar sig ramverkets framställning av liv vara hierarkisk och antropocentrisk med en betoning på mänskligt liv framför andra former av liv. I ramverket framställs mänskligheten som en sammanhållen helhet, men vid närmare granskning framkommer att olika befolkningskategorier antas behöva bli adresserade på olikartade sätt. ESD anpassat för välbärgade populationer bedöms vara ineffektiva för fattiga populationer och ramverket föreslår att grundläggande färdigheter för att tillfredsställa basala behov är nödvändiga inom ESD som adresserar fattiga. Artikeln identifierar vidare tre centrala biopolitiska tekniker inom *ESD för 2030*: transformativ pedagogik, individuell transformation och transformation av lokalsamhället. Ramverket framhåller att transformativ pedagogik verkar genom individer och lokalsamhällen och att elevers handlingsförmåga ska stärkas genom engagemang på lokalsamhällesnivå, vilket

uppges vara avgörande för att få till stånd ett mer hållbart samhälle. Analysen belyser således att *ESD för 2030* i stället för att utesluta vissa befolkningsgrupper, inkluderar dem, men att ramverket samtidigt framhåller att fattiga befolkningsgrupper och lokalsamhällen behöver adresseras på andra sätt än rika.

I kontrast till biopolitisk differentiering mellan rika och fattiga elevpopulationer avslutas artikeln med förslag om en mer affirmativ differentiering baserad på Foucaults teorier om etik och självformering. Det föreslås att eleverna, i stället för att finna redan befintliga värden och handlingsalternativ inom lokalsamhället, bör anta en kritisk hållning och utöva aktiv självformering genom att undersöka hur deras lokalsamhälle och andra lokalsamhällen har bildats i relation till varandra, och hur olika sätt att leva påverkar samt påverkas av andra. Denna ansats erbjuder potential för en mer radikal form av ESD som erkänner komplexa samband mellan globala mönster av ojämlikhet och hållbarhetsfrågor.

Artikeln bidrar således till tidigare studier inom ESD genom att belysa biopolitiska dimensioner av *ESD för 2030*, ifrågasätta befintliga perspektiv på inkludering och differentiering samt föreslå en affirmativ ansats baserad på teorier om självformering och kritisk granskning.

Artikel 3

Artikeln undersöker hur världens största program för hållbara skolor, *Eco-Schools*, implementeras i olika geografiska och socioekonomiska kontexter i ett höginkomstland (Sverige), ett medelinkomstland (Sydafrika) och två låginkomstländer (Rwanda och Uganda). Programmet implementeras enligt en stjustegmodell och syftar till att ha en livslång positiv inverkan på unga människors liv genom att förbättra miljön i skolor och dess omgivande lokalsamhällen.

Studien bygger på fältarbete utfört i certifierade Eco-Schools-skolor i Rwanda, Sydafrika, Sverige och Uganda. Materialet består av transskript från intervjuer med 45 lärare och rektorer från sammanlagt 31 skolor i mycket olika geografiska och socioekonomiska kontexter. Transkripten, som utgör huvuddelen av datamaterialet, kompletteras även med andra stödmaterial, såsom tryckt material och fältanteckningar från observationer.

Studien tillämpar ramverket utvecklat av Hellberg och Knutsson (2018a, 2018b) och riktar fokus mot de styrningsrationaliteter och tekniker som kommer till uttryck när Eco-Schools implementeras i relation till olika elevpopulationer i åldern 12-16 år. Rationaliteterna innefattar hur olika elevpopulationer konstrueras som lämpliga för olika Eco-Schools-aktiviteter och vilken typ av subjektiviteter dessa interventioner syftar till att skapa. Teknikerna innebär i sin tur

att de pedagogiska och didaktiska tekniker som används för att främja "gröna" färdigheter och hållbara levnadssätt studeras.

Studiens resultat är organiserade enligt tre teman: hur liv och livsstilar uppfattas och hur hållbarhetsproblem konstrueras; hur Eco-Schools-temana mat och avfall implementeras; samt hur lokalsamhället adresseras genom olika initiativ. Resultaten visar att elever i fattiga rurala skolor i Rwanda och Uganda beskrivs komma från fattiga samhällen bestående av småskaliga jordbrukare med begränsad utbildningsbakgrund. Identifierade problem inkluderar ineffektiva jordbruksmetoder och ineffektivt resursutnyttjande, vilket leder till svårigheter att tillgodose grundläggande behov. De pedagogiska teknikerna som tillämpas i dessa skolor är ofta inriktade mot att ge eleverna färdigheter i entreprenörskap och effektiva jordbruksmetoder samt att få elever och föräldrar att involvera det omgivande lokalsamhället i hanteringen av lokala hållbarhetsproblem.

I skolor i fattiga urbana områden beskrivs elevernas levnadsvillkor utifrån brist på trygg mat tillgång och svårigheter att tillgodose grundläggande behov. Eleverna konstrueras, liksom eleverna i fattiga rurala kontexter, som i behov av färdigheter för självförsörjning för att hantera ekonomiska nedgångar och arbetslöshet. De pedagogiska teknikerna som tillämpas riktas mot småskaligt entreprenörskap och matproduktion för att tillfredsställa individuella behov. Dessutom uppfattas problemet med nedskräpning och sophantering ofta som akut i dessa kontexter. Arbetet med att engagera lokalsamhället är därför ofta inriktat mot att ändra lokalbefolkningens sätt att tänka kring nedskräpning och andra lokala hållbarhetsproblem.

I kontrast till dessa fattiga kontexter framställs elevernas liv och lokala problem mycket annorlunda i skolor i rika lokalsamhällen i Sydafrika och Sverige. Här beskrivs eleverna vanligtvis leva en masskonsumtionslivsstil med tillgång till resurser, teknik och möjligheter. Få lokala problem identifieras av respondenterna i dessa skolor och problemen som adresseras tenderar att vara mer abstrakta och existera någon annanstans och beröra andra befolkningsgrupper. De färdigheter som anses viktiga för eleverna att tillgodogöra sig kretsar ofta kring att möjliggöra små livsstilsförändringar samt göra "hållbara" val som konsument. De pedagogiska teknikerna som tillämpas i dessa skolor innefattar aktiviteter där eleverna ska lära sig akademisk kunskap eller färdigheter för att mildra konsekvenserna av masskonsumtion. Dessa aktiviteter planeras för att vara roliga och kreativa och involverar ofta olika typer av tävlingar. Eftersom få akuta lokala problem identifieras i rika lokalsamhällen, adresseras i regel inte närområdet utan aktiviteter är inriktade mot att skapa medvetenhet bland eleverna om problem som finns

någon annanstans samt anordna olika former av insamlingar och donationer för att adressera dessa problem.

Artikeln drar slutsatsen att rika och fattiga elevpopulationer adresseras på mycket olika sätt inom Eco-Schools och att interventionerna inom programmet anpassas till elevers socioekonomiska och geografiska förhållanden. Detta framhålls som problematiskt i artikeln eftersom en sådan anpassning till elevernas olika "verkligheter" riskerar att falla in i eller till och med reproducera globala mönster av ojämlikhet, om inte den politiska undertexten för dessa "verkligheter" beaktas, och om lokala kontexter behandlas som isolerade och givna snarare än relationella och producerade (se även Knutsson, 2020).

Artikel 4

Den här artikeln undersöker didaktiska alternativ till biopolitisk differentiering inom ESD. I artikeln identifieras tre "problem" som framkommit i tidigare biopolitisk ESD-forskning, och utifrån dessa problem formuleras didaktiska svar som tar utgångspunkt i teorier av Judith Butler (2004, 2009), Jacques Rancière (1991, 1995) och Michel Foucault (1990, 1992).

Det första problemet som adresseras är etablerandet av hierarkier mellan olika former av liv inom biopolitiskt differentierad ESD. En sådan hierarkisk uppdelning utmanas genom att Judith Butlers teorier om sårbarhet och sorg relateras till olika ESD-praktiker. I artikeln föreslås didaktiska praktiker som erkänner ömsesidigt beroende mellan alla levande varelser och som uppmuntrar erkännandet av andras sårbarhet. En sådan koppling mellan andras sårbarhet och ens egen sårbarhet argumenteras bidra till att främja förståelse och empati. Dessutom förespråkas att elever undersöker hur globala strukturer och lokala praktiker bidrar till en ojämn fördelning av sårbarheter, något som är viktigt för att inte den lokala kontexten behandlas som isolerad från andra kontexter.

Det andra problemet härrör från tidigare forskning som visat att biopolitiskt differentierad ESD förutsätter samt anpassas till ojämlikhet. För att adressera detta används Jacques Rancières teorier om jämlik intelligens, och i det andra didaktiska svaret framhålls en didaktisk praktik som behandlar alla elever jämlikt och som betonar alla elevers kapacitet för oberoende tänkande, kommunikation och handling. Detta didaktiska svar utmanar idén om en inneboende ojämlikhet mellan elever, men även mellan lärare och elever, och uppmuntrar en didaktisk praktik som ger elever möjlighet att aktivt engagera sig i kritiskt tänkande och diskussioner om hållbarhet.

Det tredje didaktiska svaret adresserar problemet att biopolitiskt differentierad ESD tilldelar olika (miljö)subjektiviteter och ansvar till rika och fattiga populationer. Svaret bygger på Michel Foucaults idéer om etik och självformning och det föreslås att didaktiska ESD-praktiker kan hämta inspiration från antika grekiska praktiker för självformering och självreflexivt skrivande. Sådana praktiker föreslås möjliggöra för eleverna att kritiskt reflektera över frågor och etiska val relaterade till hållbarhet. Dessutom föreslås praktiker inriktade mot ”sanningssägande” som ger elever utrymme att offentligt uttrycka sina sanningar samt delta i öppen dialog med andra.

Artikelnas olika föreslagna didaktiska svar härstammar från olika teorier och är inte avsedda att syntetiseras till en sammanhängande didaktisk teori. I stället erbjuder artikeln konceptuella och praktiska verktyg som pedagoger och forskare kan överväga och tillämpa i olika ESD-praktiker, eller i framtida forskning. Förhoppningen är att de didaktiska svaren kan bidra till att utmana de problemen som identifierats inom biopolitisk differentierad ESD och därmed främja en mer rättvis och jämlik utbildning.

Diskussion

Avhandlingen avslutande kapitel sammanfattar de huvudsakliga resultaten i avhandlingen och diskuterar dessa i relation till tidigare didaktisk och biopolitisk forskning. Först diskuteras didaktik i relation till biopolitisk differentiering utifrån de problematiseringar som främst görs i artikel 1. Därefter diskuteras biopolitisk differentiering i global ESD-policy och praktik utifrån resultaten i artikel 2 och 3, följt av en diskussion relaterad till de didaktiska svar på biopolitisk differentiering som föreslås främst i artikel 4. Kapitlet avslutas med förslag på framtida forskning.

I den inledande diskussionen, som berör didaktik och biopolitisk differentiering, lyfts den didaktiska vem/vilka-frågan fram som central inom didaktiska modeller och analyser. Sådana analyser framhålls ofta vara klassrumscentrerade och inriktas mot hur ämnesinnehåll och undervisningsmetoder bäst anpassas till en specifik elevgrupps behov, liv och framtida livsbanor. Avhandlingens bidrag är att problematisera vem/vilka-frågan på grupp och samhällsnivå och addera en relationell dimension till tidigare didaktiska analyser genom att belysa hur differentierad utbildning riskerar att falla in i existerande mönster av ojämlikhet mellan olika elevgrupper. För att komma åt sådan problematisk differentiering föreslås att didaktiska modeller kompletteras med ytterligare en fråga som bygger på en version av de therbornska frågorna som

presenterats i artikel 1 - *Reflekterar anpassningen av undervisning och ämnesinnehåll till elevernas liv och levnadsförhållanden en anpassning till skillnader mellan elevgrupper eller en anpassning till rådande ojämlika strukturer?* En sådan relationell dimension föreslås bidra till didaktiska analyser som både tar hänsyn till elevernas utveckling, och till hur olika elevgrupper konstrueras som lämpliga för olika innehåll utifrån existerande ojämlika mönster.

I diskussionen om biopolitisk differentiering inom ESD konstateras att avhandlingens resultat visar hur global ESD differentieras mellan olika elevpopulationer, där fattiga och rika elevgrupper görs ansvariga på olika sätt och förväntas anta olika ”hållbara” subjektiviteter och livsstilar. I *ESD för 2030* framhålls att utbildning som adresserar fattiga populationer ska fokusera på baskunskaper som möjliggör för eleverna att trygga sina basala behov. Biopolitisk differentiering är även tydlig inom implementeringen av Eco-Schools, där resultatet visar hur fattigare populationer förväntas bli entreprenöriella och självförsörjande medan rika populationer enbart förväntas göra små förändringar i sin masskonsumtionslivsstil. Sammantaget pekar resultatet mot att global implementering av ESD följer den biopolitiska differentiering innefattandes distinktioner mellan fattiga och rika som föreslagits av Hellberg och Knutsson. Sådan problematisk differentiering diskuteras därefter i relation till Mark Duffields (2007, 2011) texter om hur hållbar utveckling fungerar som en styrningsregim som upprätthåller existerande skillnader i liv och livsstilar mellan fattiga och rika populationer, där fattiga människor förväntas bli självförsörjande subjekt utan möjlighet att få tillgång till de välfärdssystem som finns på plats i flera länder i det global nord. Vidare diskuteras biopolitisk differentiering inom ESD i relation till Foucaults (2007) åtskillnad mellan begreppen normering och normalisering. Resultatet i avhandlingen pekar mot att anpassningen av ESD till rådande levnadsförhållanden och livsstilar i lokala kontexter faller in i en normalisering av ojämlikhet där det blir normalt att vissa populationer görs ”hållbara” genom att odla på sin bakgård för att trygga sina grundläggande näringsbehov medan andra görs ”hållbara” genom att använda en mobilapp för att välja mellan olika lunchalternativ. En sådan normalisering av ojämlikhet i ESD ifrågasätts och i stället föreslås att ESD ska följa en norm av jämlikhet där de ojämlika levnadsvillkor som existerar mellan olika lokalsamhällen belyses och utmanas.

I diskussionen som berör föreslagna didaktiska svar på en biopolitiskt differentierad ESD argumenteras för att ESD-praktiker inte enbart bör utgå från förhållanden som råder i den lokala kontexten och anpassas därefter, eftersom en sådan anpassning riskerar att behandla denna kontext som given och isolerad och

riskera att återskapa de levnadsvillkor som råder. I stället bör kritiskt orienterade didaktiska alternativ fokusera på relationerna mellan olika lokalsamhällen. Med utgångspunkt taget i resultatet att skolor i rika kontexter har svårt att finna relevanta lokal (miljö)problem att adressera i det egna lokalsamhället föreslås att ESD i rika kontexter bör fokusera mer på konsekvenserna av överdriven masskonsumtion och hur konsumtion på en plats är beroende av utnyttjande av landareal och människors tid på andra platser (se Hornborg, 2021). En sådan didaktisk praktik riktar fokus mot att det är rika populationer som bidrar mest till de globala miljöproblem som världen står inför, och ifrågasätter dominant perspektiv kring hållbar utveckling som tenderar att leda till ytligt engagemang i form av insamlingar och kampanjer för medvetandegörande (se Pashby & Sund, 2020), som är vanliga i rika skolor som deltar i Eco-Schoolsprogrammet.

Avslutningsvis ges förslag på framtida forskning utifrån de resultat som presenterats i avhandlingen. Förslagen innefattar forskning som undersöker hur ett rationellt perspektiv, som tar utgångspunkt i Therborns (2012, 2013) distinktion mellan skillnad och ojämlikhet, kan inkluderas i didaktiska analyser och vad en sådan utökad analys innebär för lärares planering och genomförande av undervisning. Vidare föreslås forskning om hur de didaktiska svar som presenterats i avhandlingen kan integreras inom ESD-praktiker för att belysa problem kopplade till masskonsumtion samt bidra till att elever kritiskt granskar den ekonomiska politik som producerar ojämlikt fördelade och differentierade livsstilar.

References

- Affifi, R., & Christie, B. (2019). Facing loss: Pedagogy of death. *Environmental Education Research*, 25(8), 1143-1157. <https://doi.org/10.1080/13504622.2018.1446511>
- Agamben, G. (1998). *Homo sacer: Sovereign power and bare life*. Stanford University Press.
- ALLEA. (2017). *The European code of conduct for research integrity*. ALLEA.
- Andrée, M., & Bladh, G. (2021). Didaktik och didaktiska traditioner. In M. Andrée, G. Bladh, I. Carlgren & M. Tväråna (Eds.), *Ämneslärares arbete: Didaktiska perspektiv* (pp. 67-111). Natur & Kultur.
- Ansalone, G. (2010). Tracking: Educational differentiation or defective strategy. *Educational Research Quarterly*, 34(2), 3-17.
- Ansell, N., Froerer, P., Huijsmans, R., Dungey, C., Dost, A., & Piti. (2020). Educating 'surplus population': Uses and abuses of aspiration in the rural peripheries of a globalising world. *Fennia*, 198(1-2), 17-38. <https://doi.org/10.11143/fennia.90756>
- Apple, M., Ball, S., & Gandin, L. A. (2010). Mapping the sociology of education: Social context, power and knowledge. In M. Apple, S. Ball & L. A. Gandin (Eds.), *The routledge international handbook of the sociology of education* (pp. 1-12). Routledge.
- Ball, S. J. (2012). *Foucault, power and education*. Routledge.
- Ball, S. J. (2017). *Foucault as educator*. Springer.
- Ball, S. J., & Collet-Sabé, J. (2022). Against school: An epistemological critique. *Discourse: Studies in the Cultural Politics of Education*, 43(6), 985-999. <https://doi.org/10.1080/01596306.2021.1947780>
- Ball, S. J., Maguire, M., & Braun, A. (2012). How schools do policy: Policy enactments in secondary schools. Routledge.
- Barron, K. (1999). Ethics in qualitative social research on marginalized groups. *Scandinavian Journal of Disability Research*, 1(1), 38-49. <https://doi.org/10.1080/15017419909510736>
- Belfi, B., Goos, M., De Fraine, B., & Van Damme, J. (2012). The effect of class composition by gender and ability on secondary school students' school well-being and academic self-concept: A literature review. *Educational Research Review*, 7(1), 62-74. <https://doi.org/10.1016/j.edurev.2011.09.002>
- Bengtsson, S. (2016). Hegemony and the politics of policy making for education for sustainable development: A case study of Vietnam. *The Journal of Environmental Education*, 47(2), 77-90. <https://doi.org/10.1080/00958964.2015.1021291>
- Bengtsson, S. L., & Östman, L. O. (2013). Globalisation and education for sustainable development: Emancipation from context and meaning. *Environmental Education Research*, 19(4), 477-498. <https://doi.org/10.1080/13504622.2012.709822>

- Bengtsson, S. L., & Östman, L. O. (2016). Globalisation and education for sustainable development: Exploring the global in motion. *Environmental Education Research*, 22(1), 1-20. <https://doi.org/10.1080/13504622.2014.989960>
- Biesta, G. (2010). A new 'logic' of emancipation: The methodology of Jacques Rancière. *Educational Theory*, 60(1), 39-59. <https://doi.org/10.1111/j.1741-5446.2009.00345.x>
- Biesta, G. (2017). Don't be fooled by ignorant schoolmasters: On the role of the teacher in emancipatory education. *Policy Futures in Education*, 15(1), 52-73. <https://doi.org/10.1177/1478210316681202>
- Blanck, S. (2023). *Elever möter samhällsfrågor: Didaktiska och bildningsteoretiska perspektiv på samhällsorienterande undervisning om epoktypiska samhällsfrågor* (Karlstad University Studies 2023:18) [Doctoral thesis]. University of Karlstad.
- Blenkinsop, S., Piersol, L., & Sitka-Sage, M. (2018). Boys being boys: Eco-double consciousness, splash violence, and environmental education. *The Journal of Environmental Education*, 49(4), 350-356. <https://doi.org/10.1080/00958964.2017.1364213>
- Bondie, R., Dahnke, C., & Zusho, A. (2019). How does changing "One-size-fits-all" to differentiated instruction affect teaching? *Review of Research in Education*, 43(1), 336-362. <https://doi.org/10.3102/0091732X18821130>
- Boyce, J. (1994). Inequality as a cause of environmental degradation. *Ecological Economics*, 11(3), 169-178. [https://doi.org/10.1016/0921-8009\(94\)90198-8](https://doi.org/10.1016/0921-8009(94)90198-8)
- Brante, G. (2016). Allmän didaktik och ämnesdidaktik: En inledande diskussion kring gränser och anspråk. *Nordisk Tidskrift för Allmän Didaktik*, 2(1), 52-68. <https://doi.org/10.57126/noad.v2i1.12784>
- Butler, J. (2004). *Precarious life: The powers of mourning and violence*. Verso.
- Butler, J. (2009). *Frames of war: When is life grievable?* Verso.
- Bylund, L. (2021). Rädslan för de fattiga: Om malthusianskt tankegods och behovet av kritiska perspektiv i geografiundervisning. *Geografiska Notiser*, 79(2-3), 47-58.
- Bylund, L. (2023). Education for sustainable development among rich and poor: Didactical responses to biopolitical differentiation. *Environmental Education Research*. <https://doi.org/10.1080/13504622.2023.2172140>
- Bylund, L., & Knutsson, B. (2020). The Who? Didactics, differentiation and the biopolitics of inequality. *Utbildning & Demokrati*, 29(3), 89-108. <https://doi.org/10.48059/uod.v29i3.1545>
- Bylund, L., Hellberg, S., & Knutsson B. (2022). 'We must urgently learn to live differently': The biopolitics of ESD for 2030. *Environmental Education Research*, 28(1), 40-55. <https://doi.org/10.1080/13504622.2021.2002821>
- Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education* (8th ed.). Routledge.
- Conolly, P. (2003). *Ethical principles for researching vulnerable groups*. University of Ulster.
- Dahlbeck, J. (2014). Hope and fear in education for sustainable development. *Critical Studies in Education*, 55(2), 154-169. <https://doi.org/10.1080/17508487.2013.839460>
- Dean, M. (2010). *Governmentality: power and rule in modern society* (2nd ed.). SAGE Publications.
- Death, C. (2013). Governmentality at the limits of the international: African politics and Foucauldian theory. *Review of International Studies*, 39(3), 763-787.

- Deunk, M., Smale-Jacobse, A., De Boer, H., Doolaard, S., & Bosker, R. (2018). Effective differentiation practices: A systematic review and meta-analysis of studies on the cognitive effects of differentiation practices in primary education. *Educational Research Review*, 24, 31-54. <https://doi.org/10.1016/j.edurev.2018.02.002>
- Duffield, M. (2007). *Development, security and unending war: Governing the world of peoples*. Polity press.
- Duffield, M. (2010). The Liberal Way of Development and the Development—Security Impasse: Exploring the Global Life-Chance Divide. *Security Dialogue*, 41(1), 53-76. doi:10.1177/0967010609357042
- Eco-Schools (2019). Changing together – Retrieved from: <https://www.ecoschools.global>
- Eco-Schools (2022). Our programme – Retrieved from: <https://www.ecoschools.global>
- Eikeland, I., & Ohna, S. (2022). Differentiation in education: A configurative review. *Nordic Journal of Studies in Educational Policy*, 8(3), 157-170. <https://doi.org/10.1080/20020317.2022.2039351>
- Elsbree, A. R., Hernández, A. M., & Daoud, A. (2014). Equitable instruction for secondary Latino English learners: Examining critical principles of differentiation in lesson design. *Association of Mexican American Educators Journal*, 8(2), 5–16.
- Englund, T. (2004). Nya tendenser inom pedagogikdisciplinen under de tre senaste decennierna. *Pedagogisk Forskning Sverige*, 9(1), 37-49.
- Eriksen, K. G. (2018). Education for sustainable development and narratives of Nordic exceptionalism: The contributions of decolonialism. *Nordicistica – Journal of Humanities and Social Science Education*, 7(4), 21-42.
- Esposito, R. (2008). *Bíos: Biopolitics and philosophy*. University of Minnesota Press.
- Evans, B., & Reid, J. (2014). *Resilient life: The art of living dangerously*. Polity press.
- Feinstein, N., Jacobi, P., & Lotz-Sisitka, H. (2013). When does a nation-level analysis make sense? ESD and educational governance in Brazil, South Africa, and the USA. *Environmental Education Research*, 19(2), 218-230. <https://doi.org/10.1080/13504622.2013.767321>
- Ferreira, J.-A. (2009). Unsettling orthodoxies: Education for the environment/for sustainability. *Environmental Education Research*, 15(5), 607-620. <https://doi.org/10.1080/13504620903326097>
- Ferreira, J. (2019). The limits of environmental educators' fashioning of 'individualized' environmental citizens. *The Journal of Environmental Education*, 50(4-6), 321-331. <https://doi.org/10.1080/00958964.2019.1721769>
- Fletcher, R. (2015). Nature is a nice place to save but I wouldn't want to live there: Environmental education and the ecotourist gaze. *Environmental Education Research*, 21(3), 338-350. <https://doi.org/10.1080/13504622.2014.993930>
- Foucault, M. (1990). *The History of Sexuality Vol. 3: The Care of the Self*. Penguin Books.
- Foucault, M. (1992). *The History of Sexuality Vol. 2: The Use of Pleasure*. Penguin Books.
- Foucault, M. (1998). *The history of sexuality Vol. 1: The will to knowledge*. Penguin Books
- Foucault, M. (2003a). "Society must be defended": lectures at the collège de France, 1975-76. Picador.
- Foucault, M. (2003b). The subject and power. In J.D. Faubion (Eds.), *Power; Essential works 1954-1984, volume 3* (pp. 326-348). The New Press.

- Foucault, M. (2007). *Security, territory, population: Lectures at the Collège de France, 1977-1978*. Palgrave Macmillan.
- Foucault, M. (2008). *The birth of biopolitics: Lectures at the Collège de France, 1978-1979*. Palgrave Macmillan.
- Gay, G. (2002). Preparing for culturally responsive teaching. *Journal of Teacher Education*, 53(1), 106-116. <https://doi.org/10.1177/0022487102053002003>
- González-Gaudiano, E. (2005). Education for sustainable development: Configuration and meaning. *Policy Futures in Education*, 3(3), 243-250. <https://doi.org/10.2304/pfie.2005.3.3.2>
- Gough, A. (2017). Searching for a crack to let environment light in: Ecological biopolitics and education for sustainable development discourses. *Cultural Studies of Science Education*, 12(4), 889-905. <https://doi.org/10.1007/s11422-017-9839-8>
- Gough, N. (2003). Thinking globally in environmental education: Some implications for internationalizing curriculum inquiry. In W. F. Pinar (Eds.), *International handbook of curriculum research* (pp. 53-72). Lawrence Erlbaum Associates.
- Gough, N., & Adsit-Morris, C. (2020). Words (are) matter: Generating material-semiotic lines of flight in environmental education research assemblages (with a little help from SF). *Environmental Education Research*, 26(9-10), 1491-1508. <https://doi.org/10.1080/13504622.2019.1663793>
- Graham, L., De Bruin, K., Lassig, C., & Spandagou, I. (2021). A scoping review of 20 years of research on differentiation: Investigating conceptualisation, characteristics, and methods used. *Review of Education (Oxford)*, 9(1), 161-198. <https://doi.org/10.1002/rev3.3238>
- Green, F., & Healy, N. (2022). How inequality fuels climate change: The climate case for a Green New Deal. *One Earth*, 5(6), 635-649. <https://doi.org/10.1016/j.oneear.2022.05.005>
- Gundem, B. B. (2000). Understanding European didactics. In M. Ben-Peretz, S. Brown & B. Moon (Eds.), *Routledge international companion to education* (pp. 235-262). Routledge
- Gundem, B. B. (2011). *Europeisk didaktikk: Tenkning og viten*. Universitetsforlaget.
- Hansson, S., Hellberg, S., & Stern, M. (2015). *Studying the agency of being governed*. Routledge.
- Hardt, M., & Negri, A. (2000). *Empire. The new world order*. Harvard University Press.
- Hellberg, S. (2014). Water, life and politics: Exploring the contested case of eThekweni municipality through a governmentality lens. *Geoforum*, 56, 226-236. <https://doi.org/10.1016/j.geoforum.2014.02.004>
- Hellberg, S. (2017). Water for survival, water for pleasure – A biopolitical perspective on the social sustainability of the basic water agenda. *Water Alternatives*, 10(1), 65-80.
- Hellberg, S. (2018). *The biopolitics of water: Governance, scarcity and populations*. Routledge.
- Hellberg, S. (2020). Scarcity as a means of governing. Challenging neoliberal hydromentalities in the context of the South African drought. *Environment and Planning E: Nature and Space*, 3(1), 186–206. <https://doi.org/10.1177/2514848619853551>
- Hellberg, S., & Knutsson, B. (2018a). Don efter population? Utbildning för hållbar utveckling och det globala biopolitiska GAPet. *Pedagogisk Forskning i Sverige*, 23(3-4), 172-191.
- Hellberg, S., & Knutsson, B. (2018b). Sustaining the life-chance divide? Education for sustainable development and the global biopolitical regime. *Critical Studies in Education*, 59(1), 93-107. <https://doi.org/10.1080/17508487.2016.1176064>

- Hillbur, P., Ideland, M., & Malmberg, C. (2016). Response and responsibility: Fabrication of the eco-certified citizen in Swedish curricula 1962–2011. *Journal of Curriculum Studies*, 48(3), 409–426. <https://doi.org/10.1080/00220272.2015.1126358>
- Hornborg, A. (2021). *Kannibalernas maskerad: Pengar, teknik och global rättvisa i antropocen*. Daidalos.
- Huckle, J., & Wals, A. E. J. (2015). The UN decade of education for sustainable development: Business as usual in the end. *Environmental Education Research*, 21(3), 491–505. <https://doi.org/10.1080/13504622.2015.1011084>
- Hursh, D., Henderson, J., & Greenwood, D. (2015). Environmental education in a neoliberal climate. *Environmental Education Research*, 21(3), 299–318. <https://doi.org/10.1080/13504622.2015.1018141>
- Ideland, M., & Malmberg, C. (2015). Governing 'eco-certified children' through pastoral power: Critical perspectives on education for sustainable development. *Environmental Education Research*, 21(2), 173–182. <https://doi.org/10.1080/13504622.2013.879696>
- Islam, S.; Winkel, J. (2017). Climate change and social inequality. *DESA working paper no. 152*. United Nations Department of Economic & Social Affairs.
- Jickling, B., & Wals, A. E. J. (2008). Globalization and environmental education: Looking beyond sustainable development. *Journal of Curriculum Studies*, 40(1), 1–21. <https://doi.org/10.1080/00220270701684667>
- Joseph, J. (2010). The limits of governmentality: Social theory and the international. *European Journal of International Relations*, 16(2), 223–246. <https://doi.org/10.1177/1354066109346886>
- Juelskjær, M. (2020). Mattering pedagogy in precarious times of (un)learning. *Journal of New Materialist Research*, 1(1), 52–79. <https://doi.org/10.1344/jnmr.v1i1.30067>
- Kansanen, P., & Meri, M. (1999). The didactic relation in the teaching-studying-learning process. *Didaktik/Fachdidaktik as Science (-s) of the Teaching profession*, 2(1), 107–116.
- Klafki, W. (1995). Didactic analysis as the core of preparation of instruction. *Journal of Curriculum Studies*, 27(1), 13–30. <https://doi.org/10.1080/0022027950270103>
- Knutsson, B. (2013). Swedish environmental and sustainability education research in the era of post-politics? *Utbildning & Demokrati – Tidskrift för Didaktik och Utbildningspolitik*, 22(2), 105–122. <https://doi.org/10.48059/uod.v22i2.994>
- Knutsson, B. (2014). Smooth machinery: Global governmentality and civil society HIV/AIDS work in Rwanda. *Globalizations*, 11(6), 793–807. <https://doi.org/10.1080/14747731.2014.916555>
- Knutsson, B. (2018). Green machines? Destabilizing discourse in technology education for sustainable development. *Critical Education*, 9(3), 1–18. <https://doi.org/10.14288/ce.v9i3.186283>
- Knutsson, B. (2020). Managing the GAP between rich and poor? Biopolitics and (ab)normalized inequality in South African education for sustainable development. *Environmental Education Research*, 26(5), 650–665. <https://doi.org/10.1080/13504622.2020.1735307>
- Knutsson, B. (2021). Segmented prizing: Biopolitical differentiation in education for sustainable development. *Compare: A Journal of Comparative and International Education*, 51(3), 431–447. <https://doi.org/10.1080/03057925.2019.1629276>
- Knutsson, B., & Lindberg, J. (2017). Studying "the political" in international aid to education: Methodological considerations. *Comparative Education Review*, 61(4), 701–725.

- Kopnina, H. (2012). Education for sustainable development (ESD): The turn away from 'environment' in environmental education? *Environmental Education Research*, 18(5), 699-717. <https://doi.org/10.1080/13504622.2012.658028>
- Kopnina, H., & Cherniak, B. (2016). Neoliberalism and justice in education for sustainable development: A call for inclusive pluralism. *Environmental Education Research*, 22(6), 827-841. <https://doi.org/10.1080/13504622.2016.1149550>
- Kvale, S. & Brinkmann, S. (2009). *Den kvalitativa forskningsintervjun*. Studentlitteratur.
- Laine, S., & Tirri, K. (2016). How Finnish elementary school teachers meet the needs of their gifted students. *High Ability Studies*, 27(2), 149-164. <https://doi.org/10.1080/13598139.2015.1108185>
- Lather, P. (1986). Issues of validity in openly ideological research: Between a rock and a soft place. *Interchange*, 17, 63-84. <https://doi.org/10.1007/BF01807017>
- Lemke, T. (2011). *Biopolitics: an advanced introduction*. New York University Press.
- Lindner, K., & Schwab, S. (2020). Differentiation and individualisation in inclusive education: A systematic review and narrative synthesis. *International Journal of Inclusive Education*, 1-21. <https://doi.org/10.1080/13603116.2020.1813450>
- Little, P. C. (2015). Sustainability science and education in the neoliberal ecoprison. *Environmental Education Research*, 21(3), 365-377. <https://doi.org/10.1080/13504622.2014.994169>
- Lloro-Bidart, T., & Semenko, K. (2017). Toward a feminist ethic of self-care for environmental educators. *The Journal of Environmental Education*, 48(1), 18-25. <https://doi.org/10.1080/00958964.2016.1249324>
- Malm, A., & Hornborg, A. (2014). The geology of mankind? A critique of the Anthropocene narrative. *The Anthropocene Review*, 1(1), 62-69. <https://doi.org/10.1177/2053019613516291>
- Martínez-Rodríguez, F. M., de los Ángeles Vilches Norat, M., & Fernández-Herrería, A. (2018). Challenging the neoliberal view of education: The Center for Ecoliteracy as a transformative educational practice. *Globalizations*, 15(3), 422-436. <https://doi.org/10.1080/14747731.2018.1446601>
- 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>
- Milanović, B. (2017). *Global ojämlikhet: Nya perspektiv i globaliseringens tidevarv*. Daidalos.
- Milanović, B. (2019). *Capitalism, alone: The future of the system that rules the world*. Harvard University Press.
- Miller, P., & Rose, N. (2008). *Governing the present: Administering economic, social and personal life*. Polity.
- Oakes, J. (1986). Keeping track, part 1: The policy and practice of curriculum inequality. *Phi Delta Kappan*, 61(1), 12-17.
- Osbeck, C., Ingerman, Å., & Claesson, S. (2018). *Didactic classroom studies: A potential research direction*. Kriterium.
- OXFAM (2020). *Confronting carbon inequality*. Oxfam International.

- Pashby, K. & Sund, L. (2020). Decolonial options and challenges for ethical global issues pedagogy in Northern Europe secondary classrooms. *Nordic Journal of Comparative and International Education*, 4(1), 66-83. <https://doi.org/10.7577/njcie.3554>
- Peters, M. (2017). From state responsibility for education and welfare to self-responsibilisation in the market. *Discourse: Studies in the Cultural Politics of Education*, 38(1), 138-145. <https://doi.org/10.1080/01596306.2016.1163854>
- Peters, M., & Besley, T. (2007). *Why Foucault? New directions in educational research*. Peter Lang Publishing.
- Pezalla, A., Pettigrew, J. & Miller-Day, M. (2012). Researching the researcher-as instrument: An exercise in interviewer self-reflexivity. *Qualitative Research*, 12(2), 165-85. <https://doi.org/10.1177/1468794111422107>
- Pierce, C. (2015). Against neoliberal pedagogies of plants and people: Mapping actor networks of biocapital in learning gardens. *Environmental Education Research*, 21(3), 460-477. <https://doi.org/10.1080/13504622.2014.994168>
- Polkinghorne, D. (2005). Language and meaning: Data collection in qualitative research. *Journal of Counseling Psychology*, 52(2), 137-145. <https://doi.org/10.1037/0022-0167.52.2.137>
- Rabinow, P., & Rose, N. (2003). Introduction. In P. Rabinow & N. Rose (Eds.), *The essential Foucault: Selections from essential works of Foucault, 1954-1984* (pp. i-xxxv). The New Press.
- Rancière, J. (1991). *The ignorant schoolmaster: Five lessons in intellectual emancipation*. Stanford University Press.
- Rancière, J. (1995). *On the shores of politics*. Verso.
- Rancière, J. (2004). *The politics of aesthetics: The distribution of the sensible*. Continuum.
- Reid, J. (2012). The disastrous and politically debased subject of resilience. *Development dialogue*, 58, 67-80.
- Reid, J. (2013). Interrogating the neoliberal biopolitics of the sustainable development-resilience nexus. *International Political Sociology*, 7(4), 353-367. <https://doi.org/10.1111/ips.12028>
- Reid, J. (2022). Biopolitics. In M. Lindroth, H. Sinevaara-Niskanen & M. Tennberg (Eds.), *Critical studies of the arctic: Unravelling the north* (pp. 59-76). Springer International Publishing.
- Rodin, L. (2017). Studies on governmentality: Six epistemological pitfalls. *Russian Sociological Review*, 16(2), 9-28. <https://doi.org/10.17323/1728-192X-2017-2-9-28>
- Rose, N. (1999). *Powers of freedom: Reframing political thought*. Cambridge University Press.
- Rowley J. (2012). Conducting research interviews. *Management Research Review*, 35(3/4), 260-271. <https://doi.org/10.1108/01409171211210154>
- Schofield, J. W. (2010). International evidence on ability grouping with curriculum differentiation and the achievement gap in secondary schools. *Teachers Collage Record*, 112(5), 1492-1528. <https://doi.org/10.1177/016146811011200506>
- Shava, S. (2011). Power/knowledge in the governance of natural resources: A case study of medicinal plant conservation in the Eastern Cape. *Southern African Journal of Environmental Education*, 28, 72-84.
- Sjögren, H. (2019). More of the same: A critical analysis of the formations of teacher students through education for sustainable development. *Environmental Education Research*, 25(11), 1620-1634. <https://doi.org/10.1080/13504622.2019.1675595>

- Skoglund, A. (2014). Homo Clima: The overdeveloped resilience facilitator. *Resilience: International Policies, Practices and Discourses*, 2(3), 151–167. <https://doi.org/10.1080/21693293.2014.948325>
- Skoglund, A. & Börjesson, M. (2014). Mobilizing juvenocratic spaces by the biopoliticization of children through sustainability. *Children's Geographies*, 12(4), 429–446. <https://doi.org/10.1080/14733285.2013.824739>
- Sumner, J. (2008). From academic imperialism to the civil commons: Institutional possibilities for responding to the United Nations decade of education for sustainable development. *Interchange*, 39(1), 77–94.
- Sund, L., & Pashby, K. (2018). 'Is it that we do not want them to have washing machines?': Ethical global issues pedagogy in Swedish classrooms. *Sustainability*, 10(10), 3552. <https://doi.org/10.3390/su10103552>
- Sund, L., & Pashby, K. (2020). Delinking global issues in northern Europe classrooms. *The Journal of Environmental Education*, 51(2), 156-170. <https://doi.org/10.1080/00958964.2020.1726264>
- Swain, J., Heyman, B., & Gillman, M. (1998). Public research, private concerns: Ethical issues in the use of open-ended interviews with people who have learning difficulties. *Disability & Society*, 13(1), 21-36. <https://doi.org/10.1080/09687599826894>
- Sæther, E. (2017). Ungdommers meningssskaping i møtet med utdanning for bærekraftig utvikling i samfunnsfag. In J. Bakken & E. Oxfeldt (Eds.), *Åpne dører mot verden: Norske ungdommers møte med fortellinger om skyld og privilegier* (pp. 216-231). Universitetsforlaget.
- Therborn, G. (2013). *The killing fields of inequality*. Polity Press.
- Tieso, C. (2003). Ability grouping is not just tracking anymore. *Roeper Review*, 26(1), 29-36. <https://doi.org/10.1080/02783190309554236>
- Tikly, L. (2019). Education for sustainable development in Africa: A critique of regional agendas. *Asia Pacific Education Review*, 20(2), 223-237. <https://doi.org/10.1007/s12564-019-09600-5>
- Tomlinson, C. A. (2000). Reconcilable differences: Standards-based teaching and differentiation. *Educational Leadership*, 58(1), 6-11.
- Tomlinson, C. A., Brighton, C., Hertberg, H., Callahan, C., Moon, T., Brimijoin, K., & Reynolds, T. (2003). Differentiating instruction in response to student readiness, interest, and learning profile in academically diverse classrooms: A review of literature. *Journal for the Education of the Gifted*, 27(2-3), 119-145. <https://doi.org/10.1177/016235320302700203>
- Tryggvason, A. (2018). *Om det politiska i samhällskunskap: Agonism, populism och didaktik* (Örebro studies in education 58) [Doctoral thesis]. Örebro University.
- UN (2018). *The sustainable development goals report 2018*. United Nations.
- UN (2022a). *Climate change*, Retrieved from: <https://www.un.org/en/global-issues/climate-change>
- UN (2022b). *Inequality – a defining challenge of our time*, Retrieved from <https://www.un.org/en/desa/inequality-defining-challenge-our-time>
- UN (2023). *SDG4 – retrieved from: https://sdgs.un.org/goals/goal4*
- UNESCO (2014). *Roadmap for implementing the global action programme on education for sustainable development*. UNESCO.

- UNESCO (2016). *UNESCO global action programme on education for sustainable development: Information folder*. UNESCO
- UNESCO (2019). *Framework for the implementation of education for sustainable development (ESD) beyond 2019*. UNESCO.
- UNESCO (2020). *Education for sustainable development: A roadmap*. UNESCO.
- Vetenskapsrådet (2017). *Good research practice*. Vetenskapsrådet.
- Vollmer, H. J. (2021). Powerful educational knowledge through subject didactics and general subject didactics. Recent developments in German-speaking countries. *Journal of Curriculum Studies*, 53(2), 229-246. <https://doi.org/10.1080/00220272.2021.1887363>
- Vähäsantanen, K. & Saarinen, J. (2013). The power dance in the research interview: Manifesting power and powerlessness. *Qualitative Research*, 13(5), 493-510. <https://doi.org/10.1177/1468794112451036>
- Wickman, P., Hamza, K., & Lundegård, I. (2018). Didaktik och didaktiska modeller för undervisning i naturvetenskapliga ämnen. *Nordina: Nordic Studies in Science Education*, 14(3), 239.
- Wiedmann, T., Lenzen, M., Keyßer, L. T. & Steinberger, J. K. (2020). Scientists' warning on affluence. *Nature Communication*, 11. <https://doi.org/10.1038/s41467-020-16941-y>
- Zantvoort, F. (2023). Movement pedagogies in pandemic times: Extinction Rebellion Netherlands and (un)learning from the margins. *Globalizations*, 20(2), 278-291. <https://doi.org/10.1080/14747731.2021.2009319>

The articles

Article 1

Bylund, L., & Knutsson, B. (2020). The Who? Didactics, differentiation and the biopolitics of inequality. *Utbildning & Demokrati – Tidskrift för didaktik och utbildningspolitik*, 29(3).

Article 2

Bylund, L., Hellberg, S., & Knutsson, B. (2022). 'We must urgently learn to live differently': The biopolitics of ESD for 2030. *Environmental Education Research*, 28(1).

Article 3

Bylund, L., Knutsson, B., & Lindberg, J. (Submitted). Apping lunch and earning keep: Eco-schooling in an unequal world.

Article 4

Bylund, L. (2023). Education for sustainable development among rich and poor: didactical responses to biopolitical differentiation. *Environmental Education Research* (Published ahead of print)

In recent decades, education for sustainable development (ESD) has gained prominence as an urgent educational imperative. Although ESD is championed by UNESCO as contributing to a just, and sustainable future, the question remains open whether it is possible to address all of humanity in a just and equitable manner in a highly unequal world. Influenced by biopolitical theory, this compilation thesis draws attention to how differentiation, didactics, and inequality interlace in ESD.

Article 1 problematizes the relationship between educational differentiation and inequality by critically engaging with the didactic *who*-question. Article 2 examines how UNESCO's current ESD framework handles the varying living conditions of rich and poor populations, while Article 3 explores how ESD is practically implemented in different school contexts in Rwanda, Sweden, South Africa, and Uganda. Article 4 elaborates on potential didactic responses to the problematics identified in the previous articles.

Through these studies, the thesis critically examines educational differentiation and how the construction of student populations as suitable for various forms of education risks perpetuating inequality. It also explores how educational differentiation manifests in ESD policy and practice, and how problematic differentiation can be challenged didactically.



Linus Bylund is involved in teacher education at the Department of Pedagogical, Curricular and Professional Studies. His research interests concern issues of inequality in environmental and sustainability education.

