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Teachers' Narratives on the Implementation of Education for Sustainable Development (ESD)

A comparative discourse analysis in Germany and Sweden

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Abstract

A manifold of research and literature on Environmental Education (EE) and Education for Sustainable Development (ESD) stretches from pluralistic interpretations of the concepts' definition over political debates to the formulation of practical guidelines for educators' and training programs. While being very open for interpretation, on the political agenda the concept of ESD is argued to be one of the fundamental solutions to tackle Climate Change. Among other areas in society, the ESD approach is meant to be implemented in every subject by teachers in high schools. Needless to say, this imposes a great responsibility on teachers and a successful implementation of the concept of ESD is highly dependent on the individual teacher's commitment to the topic.

The present paper investigates high school teachers' narratives on the implementation of the concept of ESD in Germany and Sweden. Discourse Theory by Laclau and Mouffe was used to develop a discourse analytical lens in order to identify differences and similarities between the discourses. The intention behind choosing a high school in Germany and Sweden is less to be understood as a comparison of two countries' performance. Instead, it shall merely allow for the identification of differences and similarities in two different communities for future knowledge exchange and identification of different communication approaches. This research proposes a deeper elaboration on power structures within the educational system in order to empower teachers to implement the concept of ESD and related pedagogical approaches.

Research data was obtained through surveys and in-depths interviews in both countries. With a focus on underlying power structures, hegemony in discourse and the role and identity of teachers, the analysis led to four main themes that will be elaborated on in the discussion of this paper. Those findings illustrate the teachers' understanding of the ESD approach and how they express to implement it. Furthermore, it discusses the portrayal of a separation between schools and reality and whether and when a lack of time and funding leads to inaction. The teachers' narratives show how a more liberated role of teachers, where the teachers identify with the responsibility and freedom that is given to them, can lead to higher motivation for an implementation of the ESD approach.

Keywords: Environmental Education, Education for Sustainable Development, Discourse Theory Laclau and Mouffe, Power in Education, comparative discourse analysis, role and identity of high school teachers, Narratives

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Abbreviations

This table is meant for abbreviations or technical terms. Adjust the left column to your own text.

EE	Environmental Education
ESD	Education for Sustainable Development
GAP	Global Action Programme
SD	Sustainable Development
SDG(s)	Sustainable Development Goal(s)
UN	United Nations
UNDP	United Nations Development Programme
UNESCO	United Nations Education, Scientific, Cultural Organization

1 Introduction

"We've come to the conclusion that education is probably the fundamental and most cost-effective way to deal with Climate Change. Because it has to do with innovation and inspiration and that's probably the easiest way to scale things up." (Mackay 2019, cited by UNESCO 2019)

Though controversial, this statement represents a popular voice among politicians, emphasizing education as a mean to cope with the consequences of Climate Change and to achieve Sustainable Development (SD) as defined in the Agenda 2030 goals. As part of this debate, in 2012 at the United Nations Conference on Sustainable Development in Rio de Janeiro, 17 Sustainable Development Goals (SDGs) were formulated as "universal goals that meet the urgent environmental, political and economic challenges facing our world." (UNDP, 2019). The cornerstone of the following thesis is SDG 4.7 which is dedicated to education and, in particular the concept of Education for Sustainable Development (ESD).

1.1 Research interest

Authors such as Paulo Freire (1972) and David W. Orr (1992) have challenged the way we perceive education, stating that traditional education is constituted to provide large amounts of knowledge and facts but it fails to teach us the competence to intellectually reflect or responsibly use this knowledge. Moreover, most of the time education surrounds a single discipline which creates a "reality" around certain epistemological assumptions while other perspectives are excluded (Lotz-Sisitka 2015). However, when dealing with global sustainability issues, more than one "reality" is implicated. This is what the Global Education First Initiative of the United Nations' General Secretary refers to when stating:

"It is not enough for education to produce individuals who can read, write and count. Education must be transformative and bring shared values to life. It must cultivate an active care for the world and for those with whom we share it. Education must also be relevant in answering the big questions of the day. Technological solutions, political regulation or financial instruments alone cannot achieve sustainable development. It requires transforming the way people think and act. Education must fully assume its central role in helping people to forge more just, peaceful, tolerant and inclusive societies." (UNESCO 2016)

Aiming to change the paradigm of education, including transdisciplinary learning and value-based education, next to other notions that will be elaborated on below, the concept of ESD was created. The former ESD period from 2005-2014 was followed by UNESCO's Global Action Programme (GAP) and provides guidelines for every country to work towards the goals' implementation to contribute to the Agenda 2030. Those guidelines are written in "UNESCO roadmap for implementing the Global Action Programme on Education for Sustainable Development" (UNESCO 2019a), which is referred to when speaking of UNESCO guidelines in this paper. However, as it will be shown, in the background chapter, the interpretations around this differ from country to country, which leads to a variety of approaches and projects by various actors (Sauvé 1996; Scott and Gough 2003; Hensley 2017). Most literature describes the concept of ESD as ambiguous and open for interpretation regarding the concepts of education and SD as its parts (e.g. see Sandell et al. 2008, Kopnina 2012). Its ambiguity is influenced by factors such as cultural history, the political system, ecology, economy or socio-cultural factors and leads to undefined responsibilities in its practice (Kopnina 2012). Research in this field that focuses on the role of the teachers illustrates that the complexity of the concept of ESD challenges teachers to practice it along its multiple ways of interpretation (see Scott and Gough 2003, Corney 2006). Research has shown that teachers' motivation and commitment to the topic and its teaching is the driving force to overcome barriers such as a lack of knowledge,

financial or institutional support or clearly defined teaching methods (see Kennelly et al. 2008; Shuman and Ham 1997; Sund and Wickman 2008).

Referring to former research and the Agenda 2030, this study is of value as it delivers insights regarding impacts on the individual's motivation and commitment when implementing the concept of ESD. This contributes to ESD research by illustrating how power structures identified in teachers' narratives might influence the teachers' identity and agency, leading to action or inaction of teachers in high schools. Recognizing the influential power of discourse on how reality is co-constructed through articulation (Laclau and Mouffe 1985), it adds to the literature of Environmental Communication studies.

1.2 Research aim, objectives and questions

Regarding the teachers' understanding of the concept of ESD, previous mentioned research has shown, that their commitment to the topic and socio-cultural differences contribute to overcome existing challenges (Kennelly et al. 2008; Shuman and Ham 1997; Sund and Wickman 2008). Therefore, this study will focus on teachers' narratives concerning their understanding and identification with the concept of ESD in high schools, comparing teachers' narratives from Germany and Sweden. Discourse Theory after Laclau and Mouffe (1985) and concepts of power and identity are used to comparatively elaborate on power structures constructed within the discourse about the concept of ESD.

A comparative analysis in Germany and Sweden aims to give insights in differences and similarities between the teachers' understanding of the concept of ESD and how they express their practice and experiences. Therefore, this study contributes to ESD research following the objective of discussing how different discourses affect the implementation of the concept of ESD. By investigating teacher narratives, this study aims to analyze the relation of discourse and expressed practice in order to elaborate on power structures of any form. The identification of power structures within the discourse which are influencing the teachers' agency to implement the ESD approach will allow the researcher to put investigations on the school system as a top-down structure in relation to the micro-level; the motivation and commitment of the teacher.

Following the aim and objectives of this study, formulated research questions will be answered:

- What is the teachers' discourse around ESD?
- How does the discourse shape the teachers' identity and role in implementing ESD in return?
- Which power structures can be identified and how do they lead to action or inaction of the teachers?
- What differences and similarities can be identified between Germany and Sweden?

The model in figure 1 below will clarify how the different parts of this study work together.

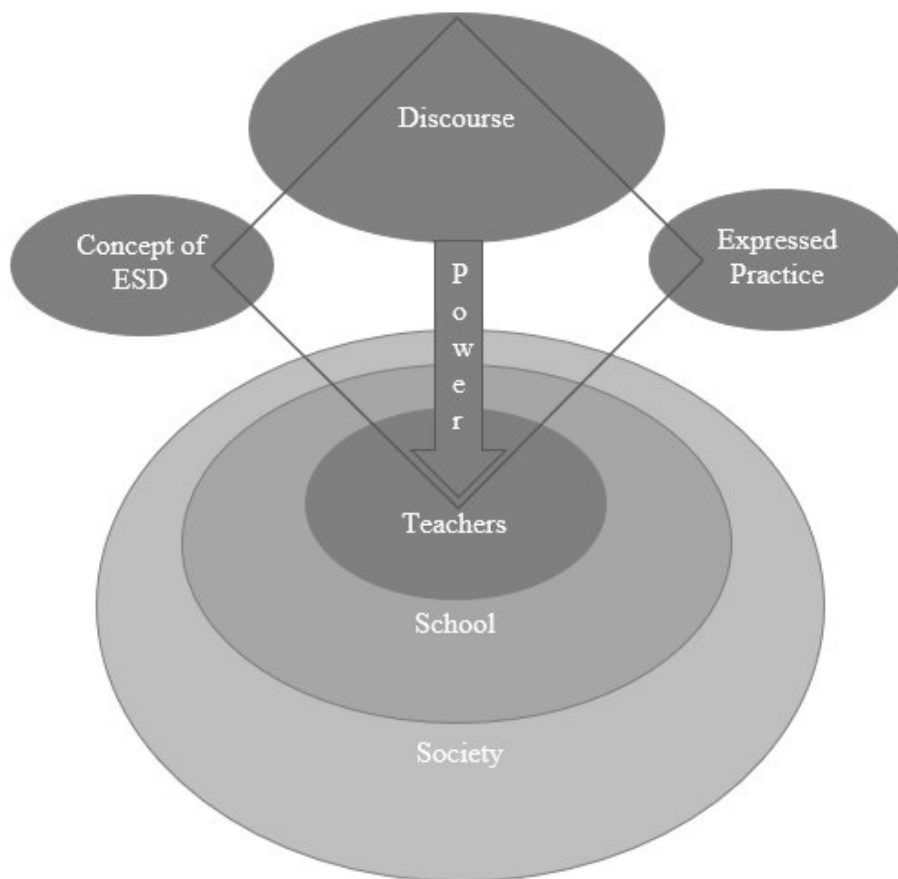


Figure 1: Model of the different aspects of the study

1.3 Thematic background

The next chapter introduces different academic papers and political documents that are relevant for this thesis. It will become clear that ESD is the momentary outcome of a continuing political discussion that developed from concepts such as Environmental Education and Sustainability and Development Education. Therefore, the concepts at hand and implications for the teachers working with the ESD approach will be defined based on literature review and according to the researcher's understanding.

1.3.1 Sustainable Development – A debate

In order to appropriately grasp the concept of ESD, the meaning behind the term sustainable development, as well as its origins, must be explained. In the same manner, the discussion of the results in a later chapter will illustrate how the teachers in Germany and Sweden understand the term SD and how they express implementing the concept of ESD according to their understanding of SD.

The concept of Sustainable Development (SD) originates from philosophical understanding of sustainability while perceiving societal history as progressive “toward a perfect future or away from an imperfect past” (Mitcham 1995, p. 312). The initial perception of progress in society throughout which decisions are taken by comparing a state in the past with a desirable future, entailed the misbelief of unlimited growth and soon raised the question of ecological sustainability.

Research around “The Limits to Growth” was first articulated in the book from a group of people called Club of Rome (Meadows et al. 1972). They demanded to discuss development as finite because of limited natural resources and stated that if we took

constant development and economic growth for granted, humankind could end on catastrophic terms. In the public discussion, no-growth economic concepts, referring to development without economic expansion, began to be promoted through negatively framed terms, such as what human 'should not' do, as an indication of Limits to Growth. Later, this negative framing shifted towards a positive semantic framing of what human should do by conceptualizing SD (Mitcham 1995). Finally, the term SD was on the Earth Summit in Rio de Janeiro in 1992 incorporated in the political document Agenda 21 and today the foundation of Agenda 2030. Therefore, it should build the framework for every global and local decision-making still following its definition, in order to "meet the needs of the present generation without harming the ability of future generations to meet their needs" (WCED 1987, p. 8).

1.3.2 *The concept of Education for Sustainable Development (ESD)*

In the same manner as the term of SD, the concept of ESD has evolved from the political debate associated with sustainability, acknowledging that social, economic and ecologic sustainability are each interdependently framed in the sustainable development triangle (Munasinghe 2013). In the 1972 UN conference, held in Stockholm, Environmental Education (EE) and the importance of education concerning "knowledge, skills, attitudes, motivations, and commitment" towards the solution of environmental issues was first discussed and later internationally recognized as The Belgrade Charter (Prospects 1976). This development was followed by the Agenda 21 where the Chapter 36 was dedicated to education, under the term Environment and Development Education. In relation to the following concept of ESD, McKeown and Hopkins (2003) argue that ESD became an important part of EE, while a couple of years later conversely, others argue for it to be its replacement (see also: Wesselink and Wals 2011; Johnson 2011; Årlemalm-Hagsér and Sandberg 2011; Eilam and Trop 2010).

In the Agenda 21 every form of education (formal or non-formal) was proposed as "indispensable to changing people's attitudes so that they have the capacity to assess and address their sustainable development concerns." (UN 1992, p. 320). Here, education is understood as the mean towards changing "attitudes". Putting it in other words: changing values, behavior and human mindset for a more sustainable human-nature relationship to become common-sense.¹ Today's human-nature relationship is referred to as anthropocentric. The Anthropocene "becomes a phenomenon that demonstrates the unsustainable quality of the ecological, cultural and social relationship of a human being" (Fedosejeva et al. 2018) and is the result of narrow educational goals. Anthropocentric mindsets are meant to be reacted to by holistic pedagogical approaches as to be found in the concept of ESD (ibid). United Nations Development Program (UNDP 2019a) describes the aim of the concept of ESD as to

"ensure all learners acquire knowledge and skills needed to promote sustainable development, including among others through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship, and appreciation of cultural diversity and of culture's contribution to sustainable development."

What most of the research in the field of EE, ESD and other variations agree on is, that no one knows which mindset and way of living is most sustainable and what seems sustainable in the western world might not be elsewhere or in another time (Kopnina 2012). This recognition has impact on the paradigm of education, as there does not exist one sustainable future or reality which can be taught to be the 'right way' of living (ibid). Instead, the concept of ESD becomes an approach to teach students how to understand the

¹ This interpretation derived from the Cambridge dictionary defining *attitude* as "a feeling or opinion about something or someone, or a way of behaving that is caused by this"; *mind-set* as "a person's way of thinking and their opinions"; *common-sense* as "the basic level of practical knowledge and judgment that we all need to help us live in a reasonable and safe way".

complex relationship and processes between nature and human being (Mochizuki and Yarime 2016, p.19f.). It shall therefore open educational space for dialogue instead of predicting a certain desirable sustainable future (Mochizuki and Yarime 2016, p.19f.) as societal progress was initially understood. Complex relationship and processes are to be understood as non-linear. Their development is unpredictable and constantly influenced by various human activities (Fedosejeva et al. 2018).

This degree of openness towards interpretation can be observed in the manifold of governmental documents, literature, and research on ESD, aiming to introduce the concept; the main goals and possible implementation guidelines. However, ESD still suffers from the lack of a clear definition. Indeed, according to Mochizuki and Yarime (2016), "there is no consensus on competencies to be fostered through ESD". Moreover, Kopnina (2012) states that "there is evidence that formal ESD in 'developed' countries is dominated by UNESCO guidelines" in order to implement its approach. Therefore, in order to thematize a comparison between Sweden and Germany as western developed countries, this paper will endeavor relevant characteristics of ESD, primarily through use of the paper "ESD: an expert review of processes and learning" by Daniella Tilbury (2011), which was processed by UNESCO.

1.3.3 Implications for teachers

The curriculum is the main source from which teachers develop their teaching content. In the German curricula (from the region concerning this study) ESD is mentioned in one bullet point inviting to integrate ESD next to education for values, politics and democracy, the digital world, gender, culture and intercultural education, but the concept is not emphasized as important nor explained (Qualitäts- und UnterstützungsAgentur - Landesinstitut für Schule 2019). This overarching notion of ESD can also be found in the Swedish curriculum. ESD is emphasized under the environmental perspective to be taken by the school, next to an ethical, international and historical perspective, which every teacher is supposed to integrate in their subjects (Skolverket 2013).

The last chapters, introducing the concept and various research results, show that the teachers are bestowed a massive responsibility in first interpreting and then implementing the concept of ESD (Sandell et al. 2008). However, the curriculum, which should be of support does not give explicit examples or explanations of how ESD could be implemented. For further reading the curricula can be found online.

Published by UNESCO, Tilbury (2011) summarized some changes in education, that are proposed by the concept of ESD in the following table (figure 2).

Table 1: Educational shifts proposed by ESD (Tilbury 2011, p. 25)

From	To
Passing on knowledge	Understanding and getting to the root of issues
Teaching attitudes and values	Encouraging values clarification
Seeing people as the problem	Seeing people as facilitators of change
Sending messages	Dialogue, negotiation and action
Behaving as expert – formal & authoritarian	Acting as a partner – informal & egalitarian
Raising awareness	Changing the mental models which influence decisions & actions
Changing behavior	More focus on structural and institutional change

Within this table, it is not explicitly stated that the traditional role of the teacher is changing, however, when interpreting the content of figure 2, the 'teacher' becomes a

facilitator of learning rather than the source of knowledge, as in most traditional educational paradigms (Tilbury 2011, p. 25). This in turn leads to the students being encouraged to actively participate in the learning processes. “Encouraging values clarification” prevents a mere indoctrination of values by one teacher and invites the students to critically reflect on the variety of value-system in a globalized world. In her paper, Tilbury (2011) refers to other studies in this field which “suggest that educators align ESD with active and participatory learning processes”.

If the pluralistic view on the concept of ESD and its implications for the teachers had to be summarized for this paper, the researcher wants to emphasize the following key aspects for an implementation of the ESD approach: interdisciplinary and active participatory learning processes, understanding of complex human nature relationship and processes, development of consciousness about consequences of human actions by considering the interrelations within the SD triangle, critical reflective thinking in a globalized world and values clarifications.

1.3.4 Critics

Although the concept of ESD may, for some, represent an innovative and promising perspective, there is a lack of empirical studies proving its effectiveness to contribute to the goal of SD. In their book, which endeavors a pluralistic view on ESD, Sandell et al. (2008) state two main difficulties within the concept of ESD. Firstly, how do teachers know what kind of social development should be supported, when the main content of ESD and SD itself compiles many different interests in conflicts characterized by its complexity? Secondly, whether education, which is corresponding to the model of freedom meant to promote individuals’ development of own opinions, can answer questions and promote solutions for a certain social development? To this end, this paper shows that ESD, yet defined as a concept, is ambiguous for interpretation.

There remains a contentious debate regarding the inherent consequences of its openness for interpretation; lack of clear definitions and pedagogical teaching methods, and anthropocentric paradigm when science is promoted for evaluating nature’s value for human benefit (Kopnina 2012; Jickling 1992; Wals and Jickling 2000; Sandell et al. 2008). This critic refers especially to the question of which attitude and mindset will lead to a sustainable way of living. Since this question is unanswered, Jickling (1992) argues that we cannot educate for SD. Taking an ethical perspective on education and imagining that we could, at some point, answer this question, one may consider, whether education should be thereby used for an indoctrination of certain values. Moreover, Kopnina (2012) argues that “pluralistic perspectives might not be truly democratic, as the discourse on SD is dominated by the perspectives of the political and corporate elites” (p. 707). To this end, Wals and Jickling (2000) argue that the general discourse on SD and ESD must therefore stay open for debate and interpretations of educators, in order to not become an indoctrination of limiting standards and behavior according to official definitions.

With this section on critics on ESD, the researcher aims to clarify that this thesis shall neither promote nor diminish the concept’s potential. Instead, it shall objectively present different thoughts and research on the concept of ESD as a new pedagogical approach aiming to educate for a more sustainable way of living. Moreover, the later following main chapters, addressing different narratives of teachers in Germany and Sweden, will show how a pluralistic understanding of the concept from the teachers must be considered when proposing to realize any educational concept.

2 Theoretical framework

This chapter introduces Laclau and Mouffe's main understanding of how reality is formed by discourses. It gives an overview of their main concepts and provides knowledge about the concept of objectivity to finally show their theory of power and identity in a social system structured through hegemonic intervention. In doing so, it is mainly referred to their book on *Hegemony and Socialist Society* (1985) and Jørgensen and Phillips (2002) critical reflection on their theory.

This thesis investigates teachers' present discourse on environmental education and education for sustainable development in Germany and Sweden. Furthermore, it draws relations on how these discourses shape teachers' narratives on their own identity and how it creates the social phenomenon of (in)action along political structures. This question aligns with the discourse theory by Laclau and Mouffe, who intend to identify "how discourses, more generally, limit our possibilities for action" (Jørgensen and Phillips 2002, p. 21), which is why this analytical framework was chosen for the analysis of the research data.

2.1 Discourse theory by Laclau and Mouffe (1985)

In Laclau and Mouffe's (1985) discourse theory, discourse is understood as a chain of signs, which are the basic component of linguistic and non-linguistic articulation, such as words and gestures. This chain gives objects meaning by putting the signs in relation to one another and by that create a certain reality through articulatory practice.

Laclau and Mouffe's discourse theory is based on the philosophical premise that discourses are constitutive of the social and language plays a basic role in creating reality. By articulating ideas about the reality, no matter if imagined or true, reality becomes existent, always closely connected to the symbolic meaning ascribed to the articulation. It means that discourses form our dialogues and actions, and that social structure is created and challenged through articulation. However, Laclau and Mouffe (1985) argue that there is never an objective truth to social and physical objects, but that discourses and processes of meaning-making facilitate our understanding of those objects. Laclau and Mouffe write (1985, p. 108):

"The fact that every object is constituted as an object of discourse has nothing to do with whether there is a world external to thought, or with the realism/idealism opposition. An earthquake or the falling of a brick is an event that certainly exists, in the sense that it occurs here and now, independently of my will. But whether their specificity as objects is constructed in terms of 'natural phenomena' or 'expressions of the wrath of God', depends upon the structuring of a discursive field. What is denied is not that such objects exist externally to thought, but the rather different assertion that they could constitute themselves as objects outside any discursive conditions of emergence."

It means that every social phenomenon never has a fixed meaning defined by the object itself. A social phenomenon is rather constructed by discourses, which can conflict each other dependent on individuals understanding of among others, identity, society, or objects until they come to a temporary closure in meaning regarding different articulatory signs. Closure is the term Laclau and Mouffe use for a discourse that inhibit other possible meaning. They call a continuous struggle over meaning discursive struggle and argue that it constructs reality around a phenomenon. To identify these struggles in the processes of meaning-making, Laclau and Mouffe introduced concepts concerning power, hegemony, and identity. Those concepts are explained further in relation to this studies' context in the following paragraph to simplify comprehension of the discussion of the research results in a later chapter.

2.2 Key concepts

One of the basic concepts to structure a discourse analysis is the nodal point. A nodal point is the center of a discourse and binds all the other signs around it. Yet, from discourse to discourse this nodal point is understood as a floating signifier for it struggling to have a fixed meaning. Its meaning evolves in relation to the other signs and their meanings around it. This order is constructed through any practice of articulation. SD in the context of the ESD approach in high schools is seen as the nodal point of the discourse. It is meant to be investigated in this paper by identifying its relationship to other signs that are articulated in the participants' narratives.

2.2.1 *Power and Politics*

When this closure of meaning happens, it can be interpreted as exercised power (Howarth and Stavrakakis 2000). Laclau and Mouffe (1985) argue that any exercise of power produces social order and that politics refers to the contingency in the social world, meaning that everything is "possible but not necessary" (Jørgensen and Phillips 2002, p. 38). They understand political processes as processes mediating discursive struggles by reaffirming or reframing meaning. At the same time, political processes try to ensure some form of continuity so that individuals and society can act based on existing structures, while other possible structures are excluded. By setting up the GAP for example, UNESCO exercised political power aiming to define the concepts and its implementation.

2.2.2 *Objectivity and Hegemony*

The term of objectivity is used in relation to situations or actions that are understood as "given and unchangeable" (Jørgensen and Phillips 2002, p.37). A political conflict or discursive struggle is influenced by hegemonic interventions, defined as a form of power, for objectivity in meaning to occur and to be perceived as common sense. Every other possible meaning is simply suppressed by hegemony or the outcome of negotiation over meaning, by considering only one single perspective on a phenomenon and by that giving it a certain meaning. Nevertheless, the discourse can be challenged in new articulations at any time, following the theorem that language never has a fixed meaning and therefore society and identity are adaptive as well (Jørgensen and Phillips 2002). In the context of this study, the curriculum has hegemonic power from which the teachers draw conclusions for their teaching. However, to some extent the individual teacher can decide whether his/her teaching is closely connected to the curriculum.

2.2.3 *Identity and the Social*

According to Jørgensen and Phillips (2002), Laclau based his definition of the identity of a subject on the assumption of an unconscious in every individual, that allows him/her to be influenced by a discourse. Supposedly, Laclau draws on Lacan's theory that the newborn is not aware of who it is but creates an identity through a socializing process. In these processes, the newborn is confronted with articulations and becomes aware of its identity by identifying with something outside itself. As discourses, one's identity never becomes itself but stands in continuous struggle between one's own feelings and the articulated images, that confront oneself outside one's self (Lacan 1977, cited in Jørgensen and Phillips 2002).

Jørgensen and Phillips (2002) explain that the individual becomes a subject position within a discourse and among different discourses one embodies different positions according to the discourse. They state that "the discourse thus provides behavioral instructions to people" (p. 43). In that sense, one finds him/herself embodying different identities while having different needs, when discourses happen to conflict each other throughout the same action, which is called social antagonism. A pluralistic view on ESD

and various implications ascribed to the teachers might make it difficult for the teachers to know how to implement it. This shall be elaborated on in the discussion.

2.3 Investigating Power

As explained above, every linguistic and non-linguistic articulation or sign has no meaning by itself but acquires its meaning by being put in relation to other signs within the discourse, and then results in a chain of equivalence (Laclau and Mouffe 1985). The concept of power and the analysis of power relations is central in Laclau and Mouffe's theoretical framework as it contributes to the process of meaning making. "It is power that creates our knowledge, our identities and how we relate to one another as groups or individuals" (Jørgensen and Phillips 2002, p.37).

The following chapter will describe the methodology of this study, before the research results are analyzed by using Laclau and Mouffe's discourse analytical framework as a lens to investigate how knowledge, identity and reality is formed through the present discourses around the concept of ESD in Germany and Sweden.

3 Methodology

This research is a comparative study investigating similarities and differences in teacher's narratives on the implementation of Education for Sustainable Development (ESD) in Germany and Sweden. By choosing a qualitative research design, it is enabled to explore social problems expressed throughout individuals' or a group's communication and action (Creswell and Creswell 2018). The introduced theoretical framework by Laclau and Mouffe (1985) is used as a lens building upon a constructivist worldview. The participants of the study are perceived as individuals interacting with the world around them and teachers' narratives give data for an investigation of power relations within sense-making processes.

Introduced in former chapters, research results in this field of study have shown that teachers are handed over great responsibilities in implementing a theoretically informed concept and face different forms of barriers while doing so. A constructivist worldview with a qualitative research design, shall investigate discourse and meaning-making processes that contribute to action or inaction towards those perceived barriers by analyzing "the lived experiences of individuals about a phenomenon as described by participants" (Creswell and Creswell 2018, p. 13). The phenomenon investigated, is the inaction or action of teachers implementing the concept of ESD in a German and a Swedish high school by using a narrative research point of view to find out more about teachers' narratives and identity in this process. In order to compare narratives from the respective countries the research design was the same. However, it must be underlined that this study is not meant to be a country comparison. The choice to compare narratives from two different countries shall rather enable to identify how a different discourse can influence a teacher's narrative on the ESD approach and its implementation.

3.1 Data collection

Based on this theoretical framework, the collection of data was separated into two phases by using two methods: a survey and semi-structured, open-ended in-depth interviews. Firstly, the survey, which can be accessed through the appendix, was initiated to get an overview whether teachers were informed about the concept of ESD. The questions in the survey are based on a conducted survey by Skolverket from 2001. However, first and foremost it was used to get in contact with interested participants in the follow-up in-depth interviews. The selection of participants was a snowball effect. This study started in spring and at the end of a high school year. Eight schools in Germany and six schools in Sweden were contacted through calls and e-mails to the principals with a friendly inquiry to forward the survey to teachers. This process was partly processed through the service desk or secretary but hardly anyone took time to respond. Around that time of the year, teachers are occupied with grading their students and the evaluation of the past schoolyear which could be a reason for why it was difficult to get a hold of anyone in the beginning. In respect of the given time for this study, the researcher decided to make use of existing contacts to finally get in touch with teachers. In the beginning, this was avoided to not subjectively influence the study.

In total, 12 semi-structured, open-ended interviews were conducted. One interview with each school's principal (G1/6, S1/6) is used as informative but anonymous reference. The research data obtained in interviews with five teachers from various school subjects in both countries (G2-6/6, S2-6/6) form the main data for analysis in this study. The languages used were German in Germany and a mix between English and Swedish in Sweden. The high schools that participated are comparable in their geographical location. Both high schools are in suburbs of approximately same size of inhabitants and close to a big city (>1 million inhabitants).

3.2 Discussion of research results

In the discussion of results, it is referred to the participants by using the words participants, teachers, interviewee interchangeable. Sometimes it is referred to them as he and she. Nevertheless, the sex of the participants is not of importance in this study. The themes that will structure the discussion were identified when looking for repetition or emphasized topics within the teachers' narratives. For example, the issue of a lack of time was repeatedly mentioned throughout the interviews. Moreover, it was one of the main barriers to find participants in the first place, therefore 'time' became one of the main themes in this research. Similarities and differences in the interviews from the two countries could be discovered and constructed the themes by creating a color code system when analyzing the research data. Those themes enabled the researcher to build a congruent thread of argumentation and guide the reader through the discussion and findings of this study.

A different method to investigate the implementation of ESD could have been by making observations and a practice theory approach. This approach could have been taken additionally but would expand the scope of this research. The researcher decided against this research design, because former research emphasized the teachers' motivation and commitment to the concept of ESD as a driver for its successful implementation, which could best be investigated by an analysis of teachers' narratives.

3.3 The constructivist worldview

The constructivist approach in discourse analytical studies entails the premise that humans reflect on reality as produced through discourse. Consequently, it must be understood as a believe system and not a theory (Matthews 2000). The analysis and the correlating presentation of a certain truth within this research becomes questionable regarding its objectivity. The researcher is aware that she somehow takes a stand with respect to the field of study by presenting a particular analysis. When analyzing the compiled data through the theoretical lens by Laclau and Mouffe (1985), the researcher distances herself from her subjective understandings of the investigated phenomenon. The questions raised in the survey and interviews aim in different directions than they would do otherwise. Nevertheless, the researcher is aware of never being able to fully detach herself from unconscious subjectivity, which must be considered when reading this thesis.

4 Discussion of research results

The following chapter will present the research data from six in-depth interviews in each country, Germany and Sweden. By using Laclau and Mouffe's discourse theoretical framework, various elements from the teachers' narratives will be identified and constitute in relation to each other a chain of equivalence as a process of meaning-making within the discourse of ESD. The relationships of these elements and the individual teachers as subject positions, taking part in the discourse, are meant to be investigated to draw conclusions on how the discourse leads to action or inaction in implementing ESD in Germany and Sweden. The comparison of the two countries will be embedded in this discussion chapter throughout the description of the results and the following analysis of the chain of equivalences under in the discourse identified themes. The first two sub-chapters shall give an overview of how the teachers understand and work with ESD, and related terms like SD, EE and sustainability. It follows a deeper depiction of power structures that derived from the discourses, concerning the concept's implementation. They will be elaborated on in three themes that will structure the discussion of the research results further in the following order: "Role Model vs. Indoctrination of Values", "Looking Beyond the Aspect of Time" and "Challenging the Discourse".

4.1 Teachers' understanding of SD and the ESD approach

4.1.1 *Germany*

The presentation and analysis of the research results focuses on the results from the in-depth interviews, whereas the surveys play a minor and indirect role as described in the methodology. Its minor usage is argued for in the following paragraph but will not further be addressed. During first contact with several schools to test the water it became clear that in Germany almost no one of the contacted teachers had heard about the concept or term of ESD. To overcome this barrier when investigating a concept that the participants have not heard of, the decision was taken that the survey should be used to ask about Environmental Education instead, perceiving it as the grassroots of ESD and its environmental perspective. As it can be seen in the appendix, Question 5 within the survey asked the participants to tick one of three description of EE that aligns with the participant's perspective. The third description showed parallels to ESD, therefore it can be argued that the teacher might implement ESD without using the term, when ticking the box for teacher III.² It describes his/her way of implementing EE as closely related to the definition of ESD in this thesis. Additionally, the second last question in the survey targets different perspectives on SD. During the following in-depth interviews, the teacher's answer on that one question was considered to further investigate his/her understanding of the concept of SD. Through semi-structured in-depth interviews, it was possible to lead the conversation from EE towards an interview about SD and ESD practice, as the concepts had developed on the political agenda. By that it was considered in the research that teachers, especially in Germany, might practice ESD without knowing about the term.

When talking to teachers in Germany during the fieldwork, only two of six participants had heard about the concept of ESD; the headmaster of the school and one of the interviewed teachers. While the headmaster had heard about it at a conference, the teacher was able to repeat the definition he was taught in his geography studies: "For me central in this topic is to discuss the conflicts between ecology, the present economy and societal

² Environmental issues are about human conflicts that are best dealt with democratic processes. All people's views and values are equally important when it comes to the environmental issues. The goal of environmental education is therefore that the students are active and critical in taking a position on environmental issues. In this way, students can engage in democratic talks about how we should relate to everyone, people's and other species' conditions for life and development now and in the future. (Survey question Nr. 5, see appendix)

patterns of action” (Teacher G5/6). He pointed out that he cannot include it in all his teaching sessions, but he tries to follow a pattern of always integrating

“a description of a problem, an analysis and an assessment. And in this assessment is of course the Sustainability Triangle a classic, if not THE classic, basis for a judgment. And accordingly, arguments from these three perspectives always play a role in an assessment, I would say.” (Teacher G5/6).

He described the ESD approach by referring to the SD triangle, which he uses to assess a situation and to take responsible decisions by considering the decision’s impact on the three spheres: environment, society and economy. Although he was the only teacher who actively learned about the term ESD through his higher education, other interview results have shown that almost every teacher uses teaching methods and themes, that are part of the broad concept of ESD. Teacher G4/6, who has not heard of the concept of ESD, unknowingly points out the SD triangle, that “many people then see only environmental education or the ecological aspect (...) but if we want to develop sustainably, this has a lot to do with the fact that economic and social issues are also included”. It is important to them to make the students understand that “everything is intertwined” (Teacher G4/6) and that everyone has to look at SD from a “global, systemic and personal” (Teacher G2/6) perspective.

Pointing at this context of pluralism in conflicts of interests, Teacher G2/6 gave an example of deep-sea fisheries:

“And I think that students should also be made aware of this (...) there are simply countries/people/societal classes that may not be able to afford it. (...) Is it ok if we now ban a country that we may even have exploited with colonialism from fishing, even though we used to empty the seas?” Exactly, this is a systemic problem and (...) taking the different perspectives, seeing the conflicts of interest and saying, 'it is not so easy to ban this'.” (Teacher G2/6)

This teacher uses roleplays and the fishbowl³ methods to let her students express different impressions and opinions on SD cases in the classroom. In her teaching she focuses on the students’ development of empathy for “the other” and to express their own opinions and develop a personality towards responsible citizenship. These are key terms and methods that were presented in the thematical background chapter and used by researchers and politicians when describing the practice of ESD.

One of the teachers stood out when repeating that especially in his subject, Biology, environmental education includes teaching the students “to love nature” (Teacher G3/6) and “how nature actually works. That it works perfectly like a gearbox. And we always act against its development with our [human] actions.” When asking this teacher about his understanding of SD and his teaching towards it (ESD practice), he was not expressing it in pluralistic terms on SD in our society, environment and economy from a global perspective, like the other interviewed teachers did. His answers were rather closely connected to sustainable behavior of the individual in the learning environment of the school. The school has a garden, in which the students can experience biology very close to reality and compared to other schools “the possibilities [in teaching] are incredibly good here” (Teacher G3/6). Furthermore, he pointed out in that context, that the school has a very high energy consumption and bad waste management. He expressed the challenges of systemic boundaries by saying:

“That is why I am a bit disillusioned with it. If you imagine you really want to act sustainably, but you work in a building that wastes so much energy and nobody really dares to do something about it.” (Teacher G3/6).

Together with a student he was working on assessing the economic and environmental costs of the school to participate in improving the environmental aspects in the organization

³ A teaching method, which shall encourage the students to debate about different topics in pairs or groups, while peers are able to observe the process from outside or join the discussion (Teacher G2/7).

of the school. In the same context Teacher G2/6 mentions her efforts in trying to lower down her and her colleagues paper consumption but the system does not allow it. It shows that they draw a connection between the students learning from both, the teacher as a role model and the learning environment that the students are in. Although they picture the individual as the one responsible for acting in a sustainable manner, they are raising the issue that “when it comes to sustainability (...), it is often a systemic problem” (Teacher G2/6).

Especially behavior on the personal level and in school are named by the teachers in Germany, which can be seen in the examples of waste management, electricity assessment and waste of paper in the school environment as named by some participants when asking about sustainability. Other teachers, who participated in in-depth interviews, had a wider view on SD. They were raising the aspects of education of “globalization” (Teacher G2/6, G6/6), “democracy” (Teacher G2/6, G4/6, G5/6) and “Climate Change as a societal task” (Teacher G6/6) as elements of the discourse of ESD. When arguing for these topics much weight was given to the environmental perspective of SD and the teachers always referred to the curriculum.

Research by Borg et al. (2012) has shown that teachers from different subjects have different understandings of SD, which is followed by a different implementation of the concept of ESD. As one of the teachers in Germany pointed out:

“Yes, sustainable development, what is behind it and what does that actually mean for teaching or the school? So, I mean it's then also dependent on how I fill the term, immediately it is also completely different teaching content.” (Teacher G 6/6).

Dependent on the teacher's subject, ESD entails different content, whereas the teaching methods to increase the teachers' and students' awareness of pluralistic views on SD stay the same. However, the results show that the teachers not knowing about the term ESD, still have an understanding about the complexity of SD. They are motivated to integrate SD related topics in their teaching, visit trainings and start to act upon it arguing to do so because of their personal interest and because it is important to them (Teacher G1-6/6).

4.1.2 Sweden in comparison

On the contrary, in Sweden every teacher that were interviewed was familiar with the term and concept of ESD including the three spheres pictured by the SD triangle. They had been either working with it for over a decade or it was at least a regularly used term in the school context. It led to the teachers expressing themselves in the same manner, according to the definition of the concept of ESD that can be found in UNESCO guidelines.

Compared to Germany, where most of the teachers described SD content-wise by using topics like globalization or democracy as part of the curriculum and made examples for sustainable behavior on the personal level as part of value-based education, the interviewed Swedish teachers were rather narrating about their teaching practice in general where SD and the ESD approach was perceived as already implemented. In Sweden the teachers describe SD in a more holistic way as “very wide” (Teacher S3/6). Similar to the opinion that SD is hard to define by one of the German teachers (Teacher G6/6) “because it is the climate, also biological diversity and it's economics, politics, sociology, and the nature.” (Teacher G6/6), one teacher in Sweden described the term sustainability as “this word, it depends on the person that listens, what they put in it” (Teacher S5/6). In Sweden, the various conversations about SD and ESD practice, showed that the teachers look upon the concept of ESD as a way to change things in society.

Teachers in Germany named examples for sustainable behavior to prevent their impact on the environment when being asked about SD. In Sweden the teachers just marginally touched upon that when narrating about the increasing resistance to fly that they observed in their students' behavior (Teacher S3/6, S4/6). This difference could be explained by Laclau and Mouffe's (1985) concept of objectivity, when something becomes common sense. The teachers in Sweden might not have felt the need to give examples of sustainable

behavior because it is already perceived as common sense or normal behavior to for example recycle or react to wasteful energy consumption. Besides those examples that have an immediate effect in terms of sustainability, value-based education and personality development were repeatedly named as the focus of school education in Germany in general. Some named the SD triangle and mentioned related topics but since they have not heard about the term ESD, it was hard for them to explicitly pinpoint what it entails, besides the environmental perspective. In Sweden the teachers seemed more comfortable in answering questions concerning ESD and SD, presumably because they know about the term ESD and knew how to argue for it or which topics to talk about. Especially interdisciplinarity and the identification of conflict cause and conflict management in a democratic system was named as being focused on in school in relation to ESD.

The theme 'School vs. Reality' is used to further elaborate on the differences and similarities in the teachers' narratives when expressing an implementation of EE or the ESD approach.

4.2 School vs. Reality

4.2.1 Germany

The implementation of EE and ESD in Germany is described by the teachers in two different contexts: curriculum related and extracurricular activities. Curriculum related implementation takes place during teaching hours or on excursions. Mainly it can be identified that the teachers stick to the content that is proposed in the curriculum and only if they see that they could include sustainability related topics or political issues that are related to the environment, they would discuss it in class. This depends also on the teacher's own interest or motivation to do so. Next to content-wise implementation of SD related topics, along the understanding of UNESCO, or themes in some of the teachers' subjects, there is a duality that can be observed.

Two of the teachers in Germany mentioned that they can feel a separation between reality and school. Teacher G6/6 feels that "the students in school are in a protective bubble" and she wants to prepare her students for "the world they will meet" (Teacher G6/6) by including topics that are dealt with in the media and news. Teachers G2,4,6/6 mention the Fridays for Future demonstrations initiated by Greta Thunberg, which she and her colleagues heard of through media, as a mean to thematize democratic participation and again to bridge the gap between the school and reality. Here, reality is seen as the discourse portrayed through the teachers' narratives which are influenced by the stories and news in media. In the same respect, is the teachers' understanding of SD and ESD practice influenced by trainings that will be addressed in a later chapter. When talking about environmental education related teaching, the teachers name activities like work groups after school or project weeks, which are extracurricular activities. Comparing this with the idea of the school being separated from reality, shows that environmental education or topics, that are in this study interpreted as related to SD, are not perceived as closely related to school content or the curriculum in Germany, but as an approach that needs more time and effort to be implemented and therefore becomes extracurricular work.

The results in Germany show that there is not this one defined understanding of the concept of ESD as it is written in UNESCO guidelines, if the teachers have not been actively educated in it. Nevertheless, they do use teaching methods to strengthen their students' pluralistic understanding to enhance empathy and personality development. The cases they mentioned and the opinions on the complexity of the various environmental, social and economic issues were rather reflections derived from media and the public political debate but not actively connected to the term of SD defined by UNESCO. Speaking in Laclau and Mouffe's terms ESD is a floating signifier and defined by the teachers' understanding of the terms sustainability and SD. As its parts they have no

objective truth either. Floating signifier is what Laclau and Mouffe call a discourse's nodal point that fails to have this one objective meaning and holds different meanings dependent on the discourse, the context and participants in it. The nodal point is the center of the discourse, which is surrounded by all the other elements constructing the discourse.

4.2.2 *Sweden in comparison*

In the same way, ESD is a floating signifier in the Swedish teachers' narratives dependent on their understanding of the term SD. The following paragraph will show how the interviewed Swedish teachers have narrated about the separation between the school and reality in this context. The discussion of the research data from Sweden stands in immediate comparison to the elaborated narratives from Germany.

Teacher S2/6 talks about the world as if it was broken and "in order to fix it we need to cooperate". He calls collaboration "the whole notion of SD" and for him ESD aims to encourage his students "to see things from another perspective" to be able to collaborate. Correlating to this problem-solving perspective on ESD for human attempts to "save the world" is Teacher S4/6 stating that the ecology "from which we live" should be the ground for everything and not the economy. He is "aware of the big problems to change it [this mindset]. Because we are so stuck in the structures." Similar to some teachers in Germany (Teacher G2/6, G4/6, G6/6) Teacher S4/6 is relating problems or conflicts to our societal structures and in order to accomplish SD we need to change structures and the mindset by putting ecology first. However, in Sweden the teachers argue that the ESD approach is a mean to correlate global, local and individual decisions. They "really tried to look a bit not only on our [their] own feet" but "to look at the community and the country and the world." (Teacher S3/6) because "the individuals' actions influence the world" (Teacher S5/6). In the Swedish discourse the individual becomes the one to blame or the one being able to make a change, to phrase it positively.

Just as in Germany, the teachers in Sweden narrate about a gap between the school and the world outside. While in Germany Teacher G6/6 describes the students being in a "protective bubble", which has a negative connotation to it and she wants to change that, Swedish teachers draw attention to the world outside the school as influencing the students in a negative way. Teacher S2/6 aims for his classroom to be a "safe haven (...) where you're entitled to learn more but also feel perhaps the outside world is perhaps at a distance." The teachers in Sweden mention that the students are concerned and have "climate depression" (Teacher S4/6) which is in other literature also known under the term of climate anxiety. Teacher S2/6 wants to help the students "to remain unbroken for 2 more weeks" and includes the preservation of their mental health in his definition of SD. Another teacher compares his teaching in natural science today to a former school for car mechanics, which he was working at. Once he had to convince his student to care at all, "here" he says "it is kind of the opposite. We care too much, so you feel bad yourself." (Teacher S4/6). Yet, the interviewed teachers in Sweden explain that they include topics the students are concerned about. (Teacher S2,6/6) They want their students to understand that they must work politically to take away some pressure from the individual (Teacher S4/6).

If we consider the German discourse being in a developing state towards action, and the teachers being motivated to engage in SD related topics, the Swedish discourse seems stagnating or rather slowing down. Teachers in both countries try to bridge the gap between school and reality, the world outside, but the teachers in Sweden are aware of a certain risk of contributing to hopelessness and climate anxiety. Therefore, they try to talk about SD related topics in a very sensitive way while describing the classroom as a safe place. Other authors such as Stoknes (2015) and Wallin (2019) study why knowledge about Climate Change does not immediately lead to action or rather have the opposite effect of resignation and hopelessness. They relate it to the framing of information and a motivation gap between knowing and doing, which also here must be drawn upon. If the discourse on SD and Climate Change has led to Swedish teachers reporting about students experiencing

climate anxiety and hopelessness, other countries should rethink of following this example and take the opportunity for a different approach.

The results of the in-depth interviews showed that the participating teachers in Sweden had a wider understanding of SD and that they had been working with the term for a longer period, while the interviewed teachers in Germany are only just in the beginning of discussing what it entails. In the interview with the one teacher in Germany (Teacher G5/6) who knew about the concept of ESD, parallels in his strain of argumentation and his level of concern about the future can be related to the Swedish discourse. This finding results in two insights. First, a clear definition of ESD can be seen as a form of hegemonic intervention from politics, which inhibits a deconstruction of the discourse, and the creation of new meanings of its elements. It implies that the teaching content might be very much influenced by hegemonic discourses that might not allow true open and pluralistic discussions in-class, which would be the opposite of the concept of ESD's goal. Nevertheless, the findings show the importance of a defined concept to ensure common understanding of its goal and responsibilities when it is the individual teacher's responsibility to give meaning to both, the concept of ESD and their role in implementing it accordingly. Second, the similarities in the narratives of the teachers who knew about the concept of ESD show that knowing about it and having a wider understanding of SD makes one be more concerned about Climate Change and the actual human impact on life on earth, which can lead to climate anxiety or hopelessness as mentioned before.

The following chapters will investigate how the discourses can lead to action or inaction of implementing the concept of ESD. Three main themes were identified relating to the power of the discourse on influencing the teachers' identity and their motivation to implement ESD practice in their teaching. The teachers' identity is seen here as their own understanding of their role within the concept of ESD and their agency to implement it, following Jørgensen and Phillips (2002) reference to Laclau and Mouffe explaining that "the discourse (...) provides behavioral instructions to people" (p. 43).

4.3 Role model vs. Indoctrination of values

According to Laclau and Mouffe (1985) the individual's identity is built through identifying and separating oneself from others. By doing so groups can be formed when the individual identifies with other people; e.g. a teacher's identification with a group of other teachers who are motivated to implement the ESD approach. When it comes to the formation of a group, Jørgensen and Phillips (2002) argue that "groups are not socially predetermined, they do not exist until they are constituted in discourse" (p. 45). They do arise, when being articulated and represented by someone speaking in behalf of a group. In the discourses at hand, the participants of the research talked about two groups of people in the school context: the teachers and the students. The teachers both, in Germany and in Sweden, become subject positions within the discourse and talk about "us" as the teachers and "they" as the students.

4.3.1 *Germany*

The overall findings from the conducted in-depth interviews is that the teachers in Germany look positive towards incorporating the ecological perspective in their classes in school. They expressed personal interest, personal opinion and awareness of the importance of SD in a globalized world (Teacher G1-6/6), and in case of the biology teachers' passion and love towards nature (Teacher G2/6, G3/6) as their motivation to integrate ESD in their teaching. Those were reasons for discussing why ESD should be implemented and for taking part in this research. In case there had been teachers participating in the research who did not see the need for EE or ESD in any form, social antagonism could have had occurred – an individual not identifying with the responsibility of implementing the ESD approach that is ascribed to him or her in the discourse. To be a role model for the students

was the overall narrative of the teachers' role in general in Germany (Teacher G2-4,6/7). Which consequences that has in terms of the concept of ESD will be elaborated later in comparison to the Swedish discourse.

However, Teacher G5/6 who is didactically trained in the concept of ESD was concerned about the public opinion about people who engage in environmental issues:

“everyone who says "yes we have to protect the environment" is directly portrayed as a dreamer or tree hugger somehow. It is not anchored in the middle of society that Climate Change is important and when you mention it, there is critique like "Now there they are again, people with their climate protection, etc." (Teacher G5/6)

Laclau and Mouffe (1985) perceive social relationships as fully discursive and that any action practiced by the individual or a group, as a subject, must be seen in relation to other actions in order to understand its meaning. The concern expressed by Teacher G5/6 might influence teachers' engagement in these topics because they do not want to be identified as tree huggers or climate activists because of character traits ascribed to it in social environment or public. Yet, the consensus of the teachers that were interviewed in Germany expressed personal interest in engaging in ESD and in “How do we [they] position ourselves [themselves] as a school?” (Teacher G4/6). This question was raised in respect of encouraging the students to participate for example in the public demonstrations Fridays for Future. Both examples show that the public debate portrayed in media has an influence on the teachers' identity as part of the school, and the identity of the school as part of society.

4.3.2 Sweden in comparison

While the narratives in Germany mainly surround the question of why the concept of ESD should be implemented, the teachers in Sweden narrate about how they do it and what can be improved. In table 1 (p. 13) comparing the role of the teacher in the concept of ESD to traditional schooling, it was shown that the teachers becomes the facilitator and not source of knowledge, while the student has a less passive and more active role. Related to that Teacher S2/6 identifies himself in the position of looking “beyond facts and raise questions around facts” (Teacher S2/6) rather than only providing them. In times of free digital access to any form of information and the flood of information one is exposed to through media 24/7, digital literacy and being critical towards the information source becomes more and more important, which the teachers argue to contribute to (Teacher S2,4,5/6).

When looking at the environmental perspective of SD, which compared to the economic and social perspective is more frequently mentioned in the narratives in both countries' discourses, teacher S5/6 assigned a different significance to it than to be found when talking to teachers in Germany. She argued for its importance and strong presence in school education by stating that “In Sweden (...) Nature is our religion (...) almost when you worship god. It's almost like you worship the nature” (Teacher S5/6). In Germany similarities can be seen in the importance ascribed to nature by the Biology teacher's (Teacher G4/6). Teacher G6/6 shared this opinion that „Geography and Biology teachers are more involved [in EE]. (...) So they might see their responsibility in teaching about it more, than the teacher in mathematics.“ The biology teacher identifies with his subject, while teachers from other subjects might perceive it as identifying with the values of a tree hugger or “don't see it as part of their subject at all” (Teacher G2/6). However, in comparison to Germany, where one of the teachers narrated about the experience of people concerned about the environment were being negatively perceived as tree huggers, the Swedish culture and the teachers openly talk about being very close to nature without fearing judgement.

In Sweden, teachers talk about several student initiatives surrounding the green movement, gender issues, vegetarianism and fair trade, which shows the engagement of the students. Teacher S2/6 states that the teachers at the school where he is working at want to “bridge the gap between students and adults at the school” and include relevant present societal concerns that the students have. One of the teachers in Sweden (Teacher S3/6)

barely used the words “they”, as in the students, and “we”, as in the teachers. Instead she used the word “we” when narrating about their time in class. This shows a very close relationship between her and her students, which supports the view of teacher S2/6, which is different to the perceived relationship between teachers and students in Germany. Teacher G6/6 observes that the students perceive her as “an authority to ask for permission” to go to the school strike for example. Regarding students’ active participation in class, in the Swedish school which was part of this research the students have a lot of freedom and agency in cocreating the teaching content together with the teachers, whereas the students in Germany were portrayed as more passive. Teacher G2/6 narrates that her students are rather irritated when she asks e.g. for their own opinion and admits that the content of the curriculum is so tight “so that only the surface of ethics and moral questions are scratched”. She argues that this could encourage the students for in-class and extracurricular personal engagement as it can be seen in the narratives of Swedish teachers.

In both countries the teachers describe their overall task to educate children to be responsible citizens in our society, “to be aware of yourself and others, therefore also being aware of the environment” (Teacher G2/6) and “sustainability is quite a big thing in that part [responsible citizenship]” (Teacher S5/6). Among others, Teacher G2/6 in Germany agrees with the notion of acting as a role model but emphasized the importance of letting her students develop their own personality and educate them “to make their own judgments and that doesn’t have to be my [her] judgment.” (Teacher G2/6). As well as in Germany, the teachers in Sweden perceive themselves as role models to show the students “how we [they] live and how we talk about this [SD and sustainability]” (Teacher S3/6) but admit that they not always are and not always can be. As discussed earlier, teachers in Sweden focus on the individual’s actions as significant contributor to regional and global consequences. The students’ opinion and values shall be formed in respect to the regional and global consequences, which was in Sweden talked about as a fact and that the students must learn how to face it. Therefore, the teachers in Sweden emphasize their responsibility of taking away pressure from their students, which cannot be found in the teachers’ narratives from Germany.

In the earlier chapter of “Critics on ESD” Sandell et al. (2008) is referenced for criticizing that education, if not wanting to be indoctrinating, cannot answer questions and promote solutions for a certain social development. Let alone the plural perspectives on it fostering its ambivalent nature. In the research data it was found that the teachers in both countries try to overcome this contradiction by being a role model with a certain mindset and at the same time create an environment in which societal values and SD can critically be reflected on. The teachers identify with the role of educating the students for a society, which is constantly developing and changing. At the same time the discourse around SD and what it means for a society to develop sustainably is still to be defined. Realistically speaking, it leads to the teacher only being a role model to a certain extent by responding to pluralistic perspectives on SD.

The repeated narrative of feeling stifled by the curriculum especially in Germany illustrates a restricting systemic power. In terms of Laclau and Mouffe (1985) the teachers become an overdetermined subject due to the contradicting discourses of the implications for the teacher in the ESD approach and traditional teaching along the curriculum and its content. This leads to social antagonism “when different identities mutually exclude each other” (Jørgensen and Phillips 2002, p. 47) in which behavioral instructions for the teachers become blurry and not clearly defined. It explains why the teachers in Germany narrate a struggle of wanting to implement ESD approach but not knowing exactly how to. This is different to the teachers in Sweden who express creative freedom, which will be illustrated in the next chapter in relation to the aspect of time.

4.4 Looking beyond the aspect of time

One of the most reoccurring sentences in the research data from Germany was “I don’t have the time”, used by every participant at some point, either survey or in the in-depth interviews. That is why the next chapter is dedicated to the topic of time, followed by a chapter about taking time and priorities. This finding can be supported by referring to Borg et al. (2012) who state the importance of time in relation to the teachers’ motivation to implement a new concept such as ESD. They summarize that

“many teachers, all around the world, want to develop their teaching and work interdisciplinary, but they feel they do not have the time because they need to keep up with the curricula.” (p. 191).

4.4.1 Germany

Borg et al.’s (2012) findings align with what was found in this research. Teachers in Germany do not only work along the requirements of the curriculum but also work with their students towards nationalized final exams (German: Zentralabitur). The teacher does not necessarily know about the content of the final exams, meaning that every topic from the curriculum must be discussed in class for the students to be prepared for the final exams. With every revision of the curriculum more topics are added on top instead of being exchanged, so that Teacher G2/6 blames the system for it.

“So much is required of me at the same time, if it just added on top again, nothing will happen. Not at all. And that’s a problem with our education system, that things just keep being added on top of it” (Teacher G2/6).

The teachers are asking for more time. “More time with the students but also more time to educate yourself and prepare the classes. It [time] is always missing. You just follow the book, because you don’t have the time.” (Teacher G2/6). Teacher G5/6 agrees by saying:

„(...) in some textbooks there are of course suggestions to be included. But that is not always the case that I say that a good ESD can really be made with the help of the textbook. That is why, of course, you have to develop teaching materials yourself.“

Furthermore, he argues that his subject geography is a subject in which ESD related content is very relevant, but it is one of the “so-called secondary subjects, which have a small amount of hours and are institutionally disadvantaged.” (Teacher G5/6).

When it was asked if they visited trainings regarding EE and ESD, the common answer was negative. Teachers in Germany are not obligated to visit trainings and although they would like to educate themselves, they point out that they barely have the time to do so. This leads to Teacher G5/6 saying: “I certainly don't do some things because I don't know them, because I'm not properly informed, because I don't have time” (Teacher G5/6).

The concerns about too little time for implementing the concept of ESD in the teachers’ narratives in Germany are in the discourse connected to three aspects: (1) the curriculum and preparation of the students for the national final exams, (2) the importance attributed to the subject in the institution school, which provides less teaching hours in secondary subjects, and (3) the amount of time allocated to the teachers allowing them to educate themselves in the topic of SD and ESD. Time becomes a systemic matter and shows that the system has political power on the freedom of the teachers choosing what to take time for.

4.4.2 Sweden in comparison

After identifying that the matter of a lack of time was a present justification for barely implementing or knowing about the concept of EE and ESD in Germany, closer attention was paid to the aspect of time in Sweden. Since in Sweden the teachers know about the concept of ESD and already actively work with it, there was no need for a justification for not implementing it. The aspect of time was only mentioned in regards of asking for more

time to visit trainings, lectures and conferences in order to educate themselves and provide up-to-date knowledge for their students. However, one of the teachers raised the aspect of financial support for (3) teachers' trainings, conferences and lectures on the topic of SD. "I have taken some courses. But just because I am interested. But that is one of the things we are quite upset about here in Uppsala. We don't really have any money to educate ourselves. So, I had to pay for myself, with money and time." (Teacher S6/6). The demand for founding to visit required trainings showed teachers' understanding of it as a constantly evolving complex concept which requires regular further training.

From UN level it is said that the concept of ESD is supposed to be implemented but no resources of time and money are provided. It is up to the individual teacher to take the time and money. Another teacher agrees that "in order to attend meetings and try to implement it in our teaching it is really down to the individual." but "it helps to have colleagues that are really interested in the subjects, are given time by the municipality to work with these types of issues." (Teacher S2/6). Therefore, teachers in Sweden build work groups to discuss ESD and come up with ideas for appropriate literature and new teaching methods.

Money and time are elements in both countries' discourses around the implementation of the concept of ESD. Both conditions must be given by the system. First to educate the teachers about the concept and provide a holistic understanding of SD, and second to give them the freedom as in time to work with it in school. The teachers in Germany feel less empowered due to the lack of time than the teachers in Sweden due to a lack of financial support.

Sweden has less or different regulations set by the system and curriculum. For example, the teachers do not have to follow a certain book in every subject as it is in Germany. In Sweden teachers decide on their own which book they want to use in their classes and "even if it [the book] is good, (...) you get tired of the book. You get locked up in the book, even if you don't want that. So, it is good for myself [me] to renew myself by having a new book." (Teacher S4/6). The freedom of choosing their own teaching material, makes them be more aware of information that is up-to-date and influences their motivation to become creative. The same applies to the curriculum and the role of the headmaster. "If you think this is really interesting, you can talk about it a longer time" (Teacher S4/6) and "this is so important, that you have a headmaster that really gives us freedom. Because we can really create things and we have a lot of opportunities" (Teacher S6/6).

It seems like, the more freedom the teachers have, the more responsibility they take to educate themselves, keep their material up to date, and the more they seem motivated to integrate new perspectives into their teaching. To serve this argument, Teacher G3/6 speaks very enthusiastically about his freedom of including the school garden in his biology classes and initiates extracurricular activities surrounding it. Repeatedly he uses the words "super", "cool", "very nice" in connection to the freedom he has in creating something new, and the positive effects it has on his students, which motivates him even more to educate them towards "loving nature" (ibid). Overall though, the teachers in Sweden feel more empowered, while the teachers in Germany are more bound to regulations and are trying to serve the system by following the curriculum.

The former paragraphs have shown that one of the major influences for teachers in Germany and Sweden to educate themselves about SD and implement the concept of ESD in their teaching is the factor of time which they believe not to have due to systemic restrictions. The argumentation is a lack of time, but it can be argued that time is knowingly relative and that it is always connected to taking your time along priorities. These priorities, co-constructed within the discourse by the teachers, can be identified by looking deeper into the research data in order to detect where these systemic restrictions or hegemonic interventions in Laclau and Mouffe's terms come from. The next chapter shall show the teachers' narratives of environmental concerns as a societal priority and its influence on the teachers' agency in implementing ESD in Germany and Sweden.

4.5 Challenging the discourse

4.5.1 Germany

Teacher G5/6 has a very clear opinion on society's priorities, saying:

"But this thought of 'Wait a minute, what is the key problem of the 21st century? It's an ecological one!' It's not there yet. And accordingly, too little is given to this by the very valuable teaching time. (...) It is not anchored in the middle of society that Climate Change is important and when you raise it, there is critique like "Now there they are again, people with their climate protection, etc." (Teacher G5/6)

The system is made responsible for inaction without referring to the teacher's own possibilities of action or ascribed responsibility of implementing the ESD approach in the end. Another teacher agrees that SD is not on the top agenda of society. She tried to find an explanation by comparing it to gender issues as one of other "social concepts that are thought of theoretically and meant to be implemented into society" (Teacher G2/6). SD and with-it sustainable behavior are perceived as a man-made concept rather than humanity's obligation for human survival. She explains inaction by arguing that most individuals are not yet affected by environmental degradation:

"When it comes to sustainability, the victims have a much smaller voice than i.e. on the gender issue, and that is why I think it will be more difficult and longer for this to become established and there are probably many more disasters to happen to make it clear to everyone what we are actually doing. (...) I think as soon as everyone in their own life realizes that something has changed, only then it will have a chance. Because then suddenly we are a bit of a victim and only then something will happen" (Teacher G2/6).

She uses the example of gender equality in comparison to sustainability which shows first and foremost that she does not perceive gender equality as part of SD but independent from it, which is different to how it is perceived in the Agenda 2030. Moreover, in her opinion the individual must be affected by consequences of Climate Change, in order to take action. Teacher G4/6 does not think that Climate Change is anymore a topic that should be controversially discussed because she states that "it is obvious by now." This obviousness might result from the media and constant news on environmental hazards such as the high number of forest fires in summer 2018 (Vidal 2018). This was followed by Greta Thunberg's school strike and high frequent media coverage in the beginning of the year 2019, which increased the public debate on Climate Change and SD, both in Germany and Sweden.

Three of six teachers in Germany have named Greta Thunberg in one or the other context in the interview, which shows her impact through the news. Teacher G4/6 was worried about taking a political stand in the name of the school, when organizing a school excursion to one of Greta Thunberg's initiated Fridays for Future strikes. She names the demonstrations as a mean for her students to investigate the topic of sustainability defined as "dealing with issues in the long term." She raises the question to discuss it "from the point of view of what are trends and what are things that can also be structurally effective (...) to enshrine something in your life." The last sentence of this narrative opens the discussion of the high amount of demonstration as something that could also be a trend rather than a revolution in order to change the perception of human-nature relationship on the political and public agenda.

Some teachers' narratives in Germany portray a picture of SD and Climate Change as something that has just now become slowly acknowledged in society. Some of the teachers in Germany express concern identifying with a pro-environmental stand because of its still debated discourse in public, which might explain restrained integration of SD related topics. Being concerned about the future and acting towards SD or sustainability equals taking a political stand in the narratives of the interviewed teachers in Germany.

4.5.2 *Sweden in comparison*

Compared to Germany, teachers in Sweden do not talk about Climate Change as controversially discussed or about engagement in those topics as a political stand. The discussed narratives lead to analyzing it as common sense. As mentioned above being close to nature is by one of the teachers even described as a form of religion (Teacher S5/6).

Moreover, in Sweden the school is situated in Uppsala, a town which is known for Sweden's oldest university (Teacher S5,6/6). The teachers visit lectures (Teacher S4/6) or invite scientists to "give our [their] students the opportunity to read the latest research, to be aware of what is happening" (Teacher S6/6). Teacher S2/6 mentions collaborations with local institutions where they formed "groups through the municipality and university (...) [with a] small basis of a teacher group on how to deal with these issues". While in Germany the public discourse is mainly influenced through media, the discourse in the participating high school in Sweden is influenced by the research community in Uppsala. The narratives from both countries illustrate how the perceived discourse outside of the school can have hegemonic power on the teachers' understanding and prioritization in their own work due to an identification with it. Teachers' narratives in both countries reflect an intrinsic motivation to act because they understand its urgency.

Comparing the narratives from Germany and Sweden illustrated a different pace in the discourse's alteration. While in Germany the teachers work with the same schoolbook for a couple of years and are challenging themselves with new knowledge on their own attempts with the given time, in Sweden the teachers' knowledge and understanding is continuously challenged by new research data from outside through a dialogue between researchers, the government and other stakeholders in the local community. Laclau and Mouffe (1985) explain the deconstruction of a discourse by giving the elements in it a different meaning to intervene hegemony. The discourse in Sweden is actively and continuously deconstructed and challenged by new knowledge, while in Germany objectivity in meaning and hegemony is more and longer present because of less freedom and little dialogue with researchers or local institutions.

5 Conclusion

This thesis has shown how discourse analysis on teacher narratives within in-depth interviews can provide understanding of how a discourse may influence teachers' narratives on their role and agency of implementing the concept of ESD in high schools. These impacts were identified as power structures. The approach of comparing narratives of different teachers in two schools, in two different countries, enabled the researcher to outline how different discourses lead to considerably different narratives on the implementation of ESD. While participating teachers in Germany are slowly getting to know the concept of ESD and SD, as part of Agenda 2030, Swedish teachers in the participating school have already been working with it for many years and the term of SD is frequently used in every-day business; thereby resulting in teaching experiences aligning with key principles derived from UNESCO guidelines. The discussion of the research data along the research questions has led to four main findings.

1. The more freedom the teachers have in implementing the ESD approach, the more motivated they are to take responsibility to do so according to their own perception on its relevance and importance. Teachers in Germany engage in extra-curricular activities because they do not think that they are given the time during teaching hours. A parallel finding on freedom could be drawn from the teacher narratives on experience with the number of engaged students in Sweden compared to Germany.
2. The more confident and familiar the teachers are with the concept of ESD, the more alarming they talk about the future. Still they are willing to engage when freedom and time is given to them.
3. Related to the issue of time, the researcher aimed to stretch the study by looking upon the teacher as part of the school system, which is part of a local community that contributes to the discourse. The discourse of teachers in the participating school in Germany is marginally influenced by media and governmental restrictions from the curriculum, whereas the discourse in the participating school in Sweden is additionally challenged by teachers collaborating with researchers from the university. Furthermore, they have the freedom and take responsibility to participate in lectures.
4. Overall, the teachers were identified to be partly overwhelmed with the freedom and initiative that is asked from them. In both countries they want to act as role-models for the students, although one of the teachers in Germany expresses negative connotation that are ascribed to people who are concerned about the environment. This is different within the group of participants in Sweden where, e.g. sustainable behavior was identified as common sense. At the same time the interviewed teachers aim to enable a safe space to express different values and opinions.

Implementing the concept of ESD is comparable to the main struggle of the debate about SD and the Agenda 2030; the complicated, yet essential juggle between enabling a world colored by its diversity and trying to solve global issues with a 'one world perspective', formulated in the SDGs.

In addition to the power relations that were identified within the investigated discourses, the power of discourse in constructing reality is to be acknowledged. The concept of ESD was invented and formulated as a means of changing peoples' mindset. However, as shown in this research, something must become common sense to be embedded in a mindset. Excerpts from Swedish teachers' narratives have shown that there is a slight difference in awareness regarding SD compared to German narratives. However, it drags negative connotations with it that might lead to climate anxiety. The researcher emphasizes that instead of repeating the narration of negative future scenarios, education should instead lead to empowerment and the chance to contribute to positive change. Moreover, for the field of

research of Environmental Communication in relation to the ESD approach, the question becomes how best to convey the urgency for change while at the same time exploring inherent opportunities through empowering key actors; including teachers, students and the local community, in order to create a more just and sustainable future. The results of this study contribute mainly to this question by deliberating greater freedom and responsibility coupled with fewer bureaucratic regulations and the invitation for individual's active participation on a local level within the global dialogue.

5.1 Critical Reflection

This paper analyzed teacher narratives to a given time at a given place. The insight that interviewees in Germany related SD to the environmental perspective in the beginning of the interviews, may have been influenced by the researcher trying to introduce the topic from the perspective of EE. However, given the circumstance, in order to ensure that they do not misunderstand or misinterpret the questions relating to the ESD approach, the researcher chose to conduct the questioning from the greatest perspective available. Nevertheless, it must be considered that the researcher may have altered the discourses by entering through this research, which holds the potential of leading to different findings to another time.

Concerning the schools that have been chosen for this study, the researcher wants to mention that the teachers in Sweden were working in a school which is actively engaging and focusing on EE and ESD. Therefore, no conclusions can be drawn on the overall narratives on the concept of ESD in Sweden. A suggestion for future research would be to have a larger, more all-encompassing sample of schools which both do and do not focus on EE and ESD approaches, in order to more accurately contribute to completing future data. Nevertheless, the results of this research clearly, constructively, and unequivocally show how different discourses may lead to a varied understanding and implementation of the concept of ESD, thereby meeting the intended research outcomes, and contributing to further future research.

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Appendix

Teachers Survey

1. Has your education included elements relevant to environmental education? Indicate which themes and to what extent.

2. Have you been doing any training for the past 5 years with relevance to environmental education? Describe brief content and scope and who arranged the training.

3. Do you discuss topics relevant to the environment in your teaching?
Yes continue with question 5.
No finish with question 4.

4. Would you like to include the environment or related topics in your teaching?
Yes
No
If you answered yes, what conditions are needed for you to be able to cover environmental education in your teaching?

5. Which of the following goal descriptions (I, II, III) is best suited to your environmental education?

Teacher I Teacher II Teacher III

Teacher I

The environmental problems are primarily a knowledge problem that is best addressed through research and communication to the public. Environmental problems are best solved by scientific experts and especially experts in natural science. The primary goal of environmental education is therefore that the students get good knowledge of environmental issues based on scientific facts. In this way, human can control nature and the conditions for human prosperity and development can be secured.

Teacher II

The environmental problems are about people's values and the environmental problems one resolves by adopting environmentally friendly values. Experts from different disciplines can guide people how they should think about environmental issues and

how they can thereby build up environmentally friendly values. The primary goal of environmental education is for students to learn how to use scientific knowledge to develop environmentally friendly values and behaviors. In this way human can adapt to nature and conditions for a good quality of life for people now and in the future can be guaranteed.

Teacher III

Environmental issues are about human conflicts that are best dealt with democratic processes. All people's views and values are equally important when it comes to the environmental issues. The goal of environmental education is therefore that the students are active and critical in taking a position on environmental issues. In this way, students can engage in democratic talks about how we should relate to everyone, people's and other species' conditions for life and development now and in the future.

Comments:

6. In what way would you like to develop your environmental education?
Please relate to the above descriptions.

7. What additional conditions/resources are needed for you to be able to meet your ambitions with environmental education?

8. How important is the environmental perspective in your teaching?
Tick the option closest to you.

The environmental perspective is central, and I try to include it in almost all my teaching.

The environmental perspective is one of many perspectives that must be addressed and discussed. I usually pick it up in the form of e.g. a theme week or one lesson or a "course".

Due to lack of time, the treatment of the environmental perspective is often something which I do not have time for.

9. Which of the following documents are important for your planning and your implementation of environmental education? Tick the options you like to answer yes to.
- Curriculum
 - Local work plan
 - School plan
 - Municipal environmental plan
 - Other documents (specify which one (s)):
10. Do you think you have access to literature (textbooks, continuing education literature, etc.) that are relevant to environmental education?
- No Yes, titles: _____
11. Do you think you have access to other teaching materials that are relevant for environmental education?
- No Yes, short description:
- _____
- _____
12. Do you feel that you have support in your environmental education by (tick the options you answer yes to):
- Municipal politicians and officials
 - School Management
 - Parents
 - Local environmental and outdoor organizations
 - Other (specify):
- _____
13. Sustainable development can be highlighted from several different perspectives. What perspective do you treat in your teaching on sustainable development?
- _____
- _____
- _____
- _____
14. For a deeper understanding and a fruitful result of my Master thesis, I would like to invite you to a personal interview. Would you be willing to answer some more questions regarding your role as a teacher? I would contact you via e-mail:
- _____

Thank you for your time and participation!!!

Charlotte Ponzelar
Charlotteponzelar@gmail.com

Overview of Interviews

Code	Country	Duration
G1/6	Germany	00:13:08h
G2/6	Germany	01:09:27h
G3/6	Germany	00:33:32h
G4/6	Germany	00:09:23h
G5/6	Germany	00:21:12h
G6/6	Germany	00:42:14h
S1/6	Sweden	00:16:43h
S2/6	Sweden	00:42:34h
S3/6	Sweden	00:25:34h
S4/6	Sweden	00:28:56h
S5/6	Sweden	00:26:59h
S6/6	Sweden	00:42:47h