Local and Global Aspects: Teaching Social Sustainability in Swedish Preschools

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Abstract: Although policy documents emphasize the importance of integrating social, economic, and environmental dimensions into education for sustainability (EfS), there is a lack of studies investigating how social sustainability can be included in preschool teaching. Therefore, this study aims to increase knowledge about preschool teachers’ teaching practices relating to social sustainability. This study uses EfS as a conceptual framework that includes a holistic view of sustainability addressing social, economic, and environmental aspects, as well as pluralistic teaching approach from a transformative perspective. To explore the views and teaching practices, individual interviews were conducted with 12 preschool teachers from eight preschools that took part in a school development project. The project included professional development workshops for teachers on EfS and local implementation efforts. Thematic content analysis was conducted. The interviews made it apparent that the teachers initially viewed sustainability from an environmental perspective; however, after involvement in the school development project, they began to integrate the social sustainability dimension into their teaching. The teachers associated local sustainability challenges with those faced internationally. To a certain extent, children’s agency was noted in pluralistic educational activities that supported children’s active participation. The level at which preschool teachers integrated social sustainability into their teaching varied.

Keywords: children’s agency; education for sustainable development; holism; pluralistic perspective; social sustainability; thematic content analysis

1. Introduction

1.1. Sustainability and Early Childhood Education

At a time when people and the planet are facing numerous challenges—for example, social injustice, economic inequalities, natural disasters, and increased consumption of natural resources—the United Nations (UN) has set 17 sustainable development goals (SDGs), which in particular emphasize how all learners should “acquire knowledge and skills needed to promote sustainable development” [1] (p. 8). The fact that an individual has knowledge about what is good for a sustainable world does not always mean that they will change their behavior; rather, alternative forms of education are needed so that they develop the necessary capacities and qualities [2]. The UN Agenda for global action, which is a plan of action for people, planet, and prosperity, identifies children as critical ‘agents of change’ and proclaims that the future of humanity and our planet lies “... in the hands of today’s younger generation who will pass the torch to future generations” [1] (p. 15). Education at an early age is considered to be important since high-quality early childhood education has positive effects on the development of children’s attitudes and formation of values, as well as on their well-being and health [3,4].

Education for sustainability (EfS) is considered to be a tool to empower learners to make conscious decisions and to take responsible action for environmental, economic, and social sustainability for present and future generations [5]. The basic concept of EfS...
is to learn to care for oneself, for other people, and for the world [6]. EfS can also be a link between local and global issues [7]. In sustainability research, environmental aspects have been prioritized, whereas social aspects, such as children’s participation, their agency, social justice, citizenship, and social equity, have received little attention [8,9]. There is also a lack of studies showing how social sustainability can be included in preschool teaching [10]. In this article, we have used the terms “sustainability” and “sustainable development” synonymously.

1.2. Swedish Preschool Education for Sustainability

All children in Sweden, regardless of family income or background, can attend preschool from the age of one; furthermore, from the autumn of the year children reach the age of three, they are entitled to three hours per week of free preschool education [11]. In Sweden about 95% of children between the ages of four and five are enrolled in preschool. Swedish preschool education integrates both teaching and caregiving to support the learning and development of children throughout their early years (ages 1–6) [12]. Play features strongly in early childhood education, and Swedish preschool education is often referred to internationally as a good model of educare [13] because of the way it combines learning and play, as well as the care and fostering of fundamental values [14].

The newly revised Swedish curriculum for preschool Lpfö 2018 [15] was introduced in 2019, and explicitly includes sustainability and how children should be given the opportunity to acquire knowledge about how different choices people make can contribute to sustainability. According to Lpfö 2018, preschool staff are expected to work with EfS, and this presents challenges in terms of the teaching practices of preschool teachers. Many preschool teachers still lack experience when it comes to working with EfS [16]. The section in the curriculum entitled “Sustainability, health and well-being” states that “Children should also be given the opportunity to develop knowledge about how the different choices that people make can contribute to sustainable development—not only economic, but also social and environmental” [15] (p. 10).

The previous curriculum, Lpfö98 (Rev. 2016), did not explicitly include sustainability, which hindered “meaningful engagement with sustainability in preschool settings” [17] (p. 344). Researchers argued that it is not enough simply to recognize children’s agency; rather, the curriculum needs to indicate how their agency can be enacted through EfS. Based on these changes in guiding policy, it is of great interest to research how preschool teachers view the new curriculum demands regarding the inclusion of EfS in their teaching.

1.3. Social Sustainability in Preschool Education

Social sustainability can be about educating individuals to identify injustices, inequalities, and problems of various types relating to social issues [18]. Children of today’s world face numerous challenges that relate to the social sphere, such as social polarization, conflicts, inequalities, injustices, and urban poverty [9,19]. Studies reveal that the focus of early childhood education for sustainability internationally has mainly been on environmental issues—for example, children’s experiences in nature, recycling, and composting; however, the economic and social dimensions are largely missing [20–22]. One reason for this is that teachers consider the interconnected aspects of the environmental, social, and economic dimensions of sustainability to be problematic, unclear, and confusing when they try to incorporate these aspects into their daily practices [23]. The content and the process of teaching EfS at preschool in Sweden have long been subjects of discussion; in addition, researchers often question EfS teaching content for preschool education [24]. In terms of preschool children’s agency in complex issues, research shows that in preschool, EfS is dealt with in quite a concrete manner, with teaching taking place in a context and within an environment [25].

Acknowledging the important role teachers have in children’s learning, Sommer, Samuelsson, and Hundeide [26] argue that preschool teachers are to encourage, challenge, and inspire children as well as support their desire to acquire knowledge about the sur-
rounding world. The idea of EfS is complex from a preschool perspective, and the challenge is often for the teacher to integrate all complex aspects of EfS teaching into daily activities. In preschool, EfS can mean educating individuals to identify problems of various types relating to sustainability [18]. For preschool teachers teaching about social sustainability, the findings of this study can be useful.

Ärlemalm and Hedefalk [27] claim that in Nordic countries, studies concerning early childhood education and EfS are limited. There are a few generalizable international studies on EfS-related practices. For example, in Australia, a randomized study evaluated the impact of teacher-designed, play-based learning experiences on the knowledge preschool children had about healthy eating and play as concepts of well-being and sustainability. The findings indicated positive changes among children in the intervention group with regards to connecting knowledge, eating healthy food, and decreasing unhealthy food servings compared to children in a control group [28]. Similarly, a study in Sweden investigated the influence of preschool teachers and parents on children’s learning for environmental, social, and economic sustainability [29]. The results show that there is a positive relationship between children’s learning about sustainability and their active participation in sustainability-related discussions and practices with teachers and parents.

To effectively meet global sustainability targets that facilitate evidence-informed policymaking, studies are needed to explore how social sustainability has been integrated into EfS in preschool education. Despite an increase in the integration of EfS into daily teaching at preschools, studies indicate that there are teachers who do not acknowledge children as active citizens capable of making positive changes within society [30].

1.4. Holistic and Pluralistic Perspectives

EfS can be defined as education that aims to promote a more sustainable future where citizens are aware of sustainability and where they are also action-oriented when it comes to sustainability issues [5]. To this end, the literature identifies two main teaching approaches. One approach is to test benchmarks for best practice, and to reproduce the knowledge, values, and actions of the existing society in a transmissive way. The second approach is to recognize the complexity of sustainability issues and the fact that there are multiple solutions to complex sustainability problems and that we need to seek social transformation in which ‘educated’ citizens are active in ongoing decision-making processes within their lifeworld [31–33]. In this study, as well as the professional development opportunities that the preschool teachers in this study took part in, the latter transformative perspective was the focus. In such a perspective, a holistic perspective on sustainability and a pluralistic perspective on teaching are central [34–36].

Seen from a holistic perspective, sustainability issues are frequently characterized by different, often even contrasting opinions about how to arrive at a solution, and children are confronted with the need to make up their own minds. The holistic perspectives focus on the interrelationship and interdependency issues of environmental, social, and economic dimensions [35]. The environmental dimension addresses issues related to natural resources, climate change, and disaster prevention; the social dimension focuses on human rights, gender equity, health, and cultural diversity; and the economic dimension refers to poverty reduction, consumption, market economy, and corporate responsibility and accountability [37]. Gough [35] argues that it is not possible to have an economy without a society or environment, and nor is it possible to have a society without an economy or environment. In teaching, this can be translated into teaching from an integrated perspective, relating the dimensions to each other, distinguishable from a separated perspective [34].

According to Öhman [36], there are three aspects to holism: (i) holism of content: integration of environmental, social, and economic dimensions of sustainability; (ii) holism of time: connection with their present, past, and future implications; and (iii) holism of space: consideration of their local, regional, and international characteristics. In EfS teaching, therefore, “Learning to connect is becoming increasingly critical to the future of people and planet” [38] (p. 62). The holistic perspective acknowledges there often
to be a conflict of interest between the three dimensions at the individual and societal levels. It is not possible to “have one’s cake and eat it too”, so there need to be priorities in terms of what to sustain and what to develop. As shown in previous studies on secondary schools, often the conflict perspective of EfS is omitted and a “harmony perspective” is developed in the classroom where conflicts can be ignored and where no priorities need to be made [39]. It is therefore interesting to see how preschool teachers deal with this aspect of holism, because it is probably even more difficult to address these critical perspectives at the preschool level.

EfS includes holistic perspectives on the content taught, and pluralistic teaching methods involving different values and world views [40]. Often holism and pluralism are found to be intertwined and are recognized to be important components for EfS.

EfS focuses on the development of the skills and competence of children and students for sustainability. EfS as a teaching approach can be described as pluralistic: i.e., it takes different perspectives, views, and values into account [36]. In this approach, the individual’s competence lies in a willingness and ability to take an active role in democratically solving complex, collective issues related to sustainability. Hence, the pluralistic approach is much about how to act in society and, therefore, it is an important aspect of social sustainability. Pluralistic perspectives are characterized by a determination to include different world views and values in the teaching of sustainability [41]. These teaching methods emphasize the importance of reflecting on issues related to sustainability instead of teaching the “right” answers. Although pluralistic teaching methods were found to be effective in elementary schools [40], information about integrating these methods into the teaching practices of preschools is limited.

The overall aim of EfS is to generate action-competent individuals [42]. Action can be defined as a behavior that is voluntary and that when targeted brings about change [43,44]. EfS can be a way to use the education system as a central agent in the transformation of our societies to make them more sustainable [42]. Therefore, we consider this overarching goal of EfS to be an important indicator of the social dimension of sustainability education. In early childhood education, transformation is about “creating changes in the ways children think, act and learn in relation to sustainability issues, topics and practices” [19] (p. 23). The concept of transformative education has previously been associated with adult education, building on the work of Mezirow [45]. According to a contemporary definition, transformative education fosters “deep engagement with and reflection on our taken-for-granted ways of viewing the world, resulting in fundamental shifts in how we see and understand ourselves and our relationship with the world” [46]. In this study, we argue that the aspects of transformative education are the aspects of developing children’s autonomy and action competence in the context of the real world that can be outside the preschool. It is important to explore the extent to which this conceptual framework can be implemented at the preschool level.

1.5. Study Purpose and Research Questions

In light of this current situation, the purpose of this study is to increase knowledge about preschool teachers’ teaching practices relating to EfS with a special focus on aspects of social sustainability. This knowledge is needed to effectively meet global sustainability targets that facilitate evidence-informed policymaking. The study investigates the following research questions:

- How do preschool teachers view EfS?
- How and in what ways does preschool teachers’ teaching of social sustainability relate to:
  - a holistic perspective of sustainability, and
  - pluralistic teaching practices from a transformative perspective?
- What challenges do preschool teachers report that they encounter while teaching social sustainability?
2. Materials and Methods

The method section contains information about the context of the study, including the teachers’ professional development (TPD) project, followed by a description of research design investigating the outcomes of the TPD project, as well as of participants, data collection, data analysis, and ethical considerations.

2.1. Context of the Study

Our study was conducted in the context of an EfS-school development project in a mid-sized town in Sweden. The project was developed together with 10 preschools aiming to support the development of TPD based on the idea of a whole-school approach [47–49], where all levels in the (pre)schools—that is to say, from school management to young children—were included. A combined professional development program based on the suggestions of Desimone [50], Timperley [51], and Avery and Nordén [52] was introduced that aimed to provide school development in line with EfS through changed teaching practices, as outlined in the conceptual and theoretical framework.

Two school development project leaders, who led the two-year project, arranged a training course consisting of a one-day meeting each semester for the preschool teachers and school management. In this course, expert researchers in the fields of EfS and preschool education participated as teachers. The first day of training revolved around what EfS is and why such an educational approach can contribute to transformation; the second day revolved around how to implement EfS in teaching in a practical way, i.e., holism and pluralism; and the third day revolved around the new curriculum in relation to EfS. Days two and three involved the active participation of school management. The last two training days were held after this study had been conducted.

To transform the input from research and curriculum into teaching practices, four coordinators, who themselves were preschool teachers, were recruited (10% employment) to the project. These coordinators met the preschool teachers every month in order to facilitate and support the development of new teaching practices. In addition, the coordinators created an open digital notebook for the preschool teachers to communicate their ideas, practices, and thoughts relating to EfS. The coordinators met the two project leaders three to four times each semester for the purpose of professional development and for the chance to discuss and support development in the preschools. In order to secure the involvement of the whole (pre)school and real transformation, the project leaders also met the school leaders three to four times each semester.

2.2. Methods

The main project, as described in Section 2.1, had a theoretical basis in a whole-school approach that involved, jointly and directly, the two school development project leaders, the preschool teachers, the preschool management, and politicians at the municipal level in the implementation of EfS. The involvement of these various levels demonstrates project adherence to a whole-school approach, developed in line with the framework of school improvement theory [48]. Accordingly, the project design was three-part: (i) school development at the local preschool level; (ii) teacher professional development including all staff; and (iii) evaluation of and research on what occurred in the preschools. This particular study, which forms part of the evaluation and research, employed a qualitative semi-structured interview design so as to acquire an in-depth and detailed understanding of how preschool teachers integrate EfS into their daily teaching. Individual interviews were used to collect data, which enabled the participants to discuss and reflect on their EfS practices [53]. As this study was conducted midway through the project, our focus was on teachers’ EfS practices rather than the impact of TPD. The study was conducted between April and May 2018. Descriptions of Participants and Data Collection, Thematic Content Analysis, Trustworthiness, and Ethical Consideration are given below.
2.2.1. Participants and Data Collection

Twelve teachers, all employees at the eight participating preschools, were interviewed individually. As mentioned earlier, four of these preschool teachers were engaged (part-time—10%) as local coordinators for the project. The interviews were conducted a year and a half after the school development project reached completion, which means that the preschool teachers had participated in three out of five training days. The participants were all women aged 26 to 62 who were certified preschool teachers with between 6 and 33 years of experience working with young children. In total, ten preschools participated in the ESD school development project, but two of them were unable to participate in the interview study due to other commitments. The preschools were all located in the same municipality in Sweden.

An interview guide was developed that included questions concerning demography, teachers’ views on sustainability and EfS in relation to children’s learning, their experiences of working with EfS, as well as challenges that came with the integration of EfS into preschool education. Conducted in Swedish, the interviews were audio-recorded and were fully transcribed by a professional transcriber.

2.2.2. Thematic Content Analysis

To identify the main contents of the data and their messages, a thematic content analysis of the interview transcriptions was conducted [53,54]. We adopted a two-step analysis: an inductive and a deductive analysis.

In the first step of the data analysis, the first author read the transcriptions several times to become thoroughly familiar with the data and discussed them with the second author. Both authors started with an inductive approach, searching for statements relating to the aim of the study. Initial codes were noted concurrently, and they were frequently discussed. These codes were words that sufficiently described a transcribed dialogue—what it was about or what it referred to; for example, the code “def. SD” means “definition/interpretation of sustainable development” and the code “environmental dimension only” meant that a participant referred only to the environmental dimension when talking about sustainability and excluded the other two dimensions. However, it was not just the codes but the contexts of the codes too that were given consideration when a theme was developed. Any similarities, inconsistencies, or contradictions in relation to what individual teachers said were noted for further exploration. In the later stages of the analysis, some of the codes were modified during the readings of the transcriptions to ensure consistency and coverage of the codes [55]. Similar types of codes were put into categories, and from these, major themes emerged. We based our categorization and thematization on the semantic level of the data, i.e., on the explicit utterances of the teachers [56].

In the second step of the data analysis, we conducted a deductive analysis of how these themes contained aspects of the teachers’ views on EfS as expressed in: (1) holistic and pluralistic perspectives in teaching of EfS, (2) local and global sustainability aspects, and (3) challenges teachers encountered while teaching social sustainability. A holistic perspective was coded against referents to aspects of content, time, and space, and their interconnectedness; a pluralistic teaching approach was coded against a shift in perspectives and use of multiple perspectives; and a transformative perspective was coded against integrating aspects of children autonomy, promoting action competence, integrating authentic examples, and identity making in the teaching.

The five themes, which are presented in the results below, emerged from the two-stage thematic content analysis in which we have combined both the inductive and the deductive approaches. The inductive analysis helped us to identify patterns and gain insight into the data. Through the inductive analysis, we identified several themes that were new and innovative, but also sometimes overlapping. The deductive approach enables us to identify key themes that are valuable as we seek to increase our knowledge about preschool teachers’ EfS teaching practices with a focus on social sustainability aspects.
2.2.3. Trustworthiness

In qualitative studies such as this one, trustworthiness is a recommended framework because it signifies the strength of the study [53]. Four aspects are considered important to ensure trustworthiness: credibility, transferability, dependability, and confirmability [53]. Credibility is comparable to internal validity and is about demonstrating truth value. In this study, credibility was ensured by prolonged engagement, which is achieved by remaining for an extended period in the context in which data are collected since this will allow for increased familiarity with that context (one of the authors worked in the project for its three-year duration). Furthermore, peer debriefing was used to ensure credibility: this meant allowing participants to be involved and to ask questions about the findings during the analysis. Transferability is a concept comparable to external validity in qualitative studies. Transferability is best ensured both by describing the methods and analytical process as deeply and transparently as possible so that others can judge for themselves whether the results are transferable to their context of interest. A detailed and transparent description of how the interviews were conducted is provided. All procedures are fully outlined above, and we provide a detailed description of the context of study, study design, participants, interview guide development, data collection, and analysis process. Finally, dependability and confirmability are about showing that the results of the study are consistent and grounded in the data, and that they would be interpreted similarly by another researcher, i.e., that the conclusions are not biased by the perceptions of the researcher. To achieve this, both researchers in this study were involved in a rigorous process of data analysis comprising two steps: the first was inductive, while the second was deductive as a way to minimize any bias. The themes were developed based not only on codes but also on consideration and discussion of the context of the codes. In addition, the overall project design was based on seminal research reviews of the field [50,51,53], which placed it in a solid research framework.

2.3. Ethical Considerations

Our study followed the codes and regulations of Good Research Practice [57] in terms of the informed consent of the participants, maintenance of confidentiality, and use of information for the study. The preschools that participated in our study had already consented to participation when they became involved with the EFS (pre)school development project. However, informed consent to participate in the study was also obtained from the teachers. All participation was voluntary, and the participants could withdraw their participation at any time without providing reason. This study did not include any sensitive information or participants’ personal details.

3. Results

Five major themes emerged during the thematic content analysis of preschool teachers’ interview data concerning sustainability and EFS: 1. Holistic Views of Sustainability and EFS; 2. Integrated Perspectives in EFS and SDGs at Preschool; 3. International and Local Collaboration; 4. Preschool Children’s Participation and Agency in Social Sustainability Issues; and 5. Challenges with Integrating Social Sustainability into Preschool Education. The findings are presented below.

3.1. Holistic Views of Sustainability and EFS

All the teachers described sustainability as being an abstract and complex concept that is difficult to make apprehensible in preschool practices. As well, most stated that a few years ago, their knowledge and understanding in relation to sustainability was limited to environmental aspects of sustainability and outdoor activities, but that this changed as a result of their involvement in the EFS school development project. One teacher stated that “Until now, sustainable development was really nothing more than environmental work for me. Five years ago, Green Flag (eco-certification) was perhaps a typical example of sustainable development” (L3). All preschool teachers shared the fact that they had had
an “aha moment” when they were given the opportunity both to take part in the workshop and to listen to lectures on sustainability, EfS, and the 17 SDGs. For some teachers, what was most exciting was the realization that they had already included EfS in their teaching. One teacher (L7) stated how “It was probably a huge ‘aha moment’ just to recognize that, yes, oh my goodness! We’re actually doing this already”.

In general, the preschool teachers described EfS as a perspective that teachers and children can reflect on in most existing educational activities at preschool. They mentioned how EfS is about developing a set of values that includes listening to children, and respecting and caring for each other, as well as taking care of the environment. Since “We are a little part of this large perspective, we should help each other so that we can live together in harmony” (L12). Another teacher (L6) stated that EfS is about everything: “The economic, the ecological, and the social; it is not just about them (children) having to recycle and pick up rubbish . . . rather they should have empathy for others . . . ” According to one teacher, EfS intends to support children to “. . . [B]ecome critical and to come up with solutions and not always look for the easiest way out; instead, it is important to be sustainable. It is about everything in relation to the economic, the ecological and the social” (L9).

3.2. Integrated Perspectives in EfS and SDGs at Preschool

Some teachers (for example, L3, L4, L9, L10, L11, L12) mentioned the need to integrate all three dimensions of sustainability into their work with EfS at preschool. Teacher L9 described how when she goes to the forest with children to explore nature and animals, they always take a bag with them for both rubbish and objects of interest that the children can learn about, and in such a way they establish a positive relationship with the surrounding environment. She explained how she integrated social and economic dimensions simultaneously into her teaching. To exemplify social sustainability, they work with the theme of friendship to learn about being a good friend:

*We worked with superheroes and then we could ask, ‘What is your superhero quality?’ They [the children] got the opportunity to present themselves and the qualities of one of their friends. It was something that sort of boosted their self-confidence and self-esteem. Through such work, they [the children] learn to appreciate each other and their qualities.* (L9)

As an example of economic sustainability, one teacher (L9) explained how they work with mathematics in conjunction with talk about the utilization, consumption, and recycling of resources—for example, paper, milk cartons, and corks. They talk about forms and patterns in which they include human behavior and “patterns in everyday life”, which can be interesting and critical for children. To connect economic aspects with EfS, one teacher stated that:

*...[E]conomic aspects, we probably don’t talk about money and economy in the same way [as we do with other aspects of sustainability]. Still, we try to include them with things that we have at preschool—for example, the consumption of paper.* (L3)

Most of the preschool teachers were aware of the 17 SDGs and described how they connect EfS activities with different goals. However, they stated how initially this was not easy. One teacher (L12) described her feelings when she first heard about the 17 SDGs: “Oh my goodness! How can I work in my tiny department and contribute to gender equality in society, and how will my work have global influence?” She explained her realization, after attending the workshop and lectures, that the preschool already worked with many of the SDGs, such as GOAL 3: Good Health and Well-Being; GOAL 4: Quality Education; and GOAL 5: Gender Equality. Most preschools had a poster of the 17 SDGs in their entrance hall to increase awareness among parents. The teachers stated how it is often positive for children to see how their parents had contributed or what they had constructed for the preschool.

Another teacher (L4) stated that, “We started working with [global goals] in a more concrete way, explaining them to the children. We put the goals on our walls”. The teachers
provided examples of how they integrated global issues into their teaching, such as plastic in oceans (L4) and water consumption (L11). Another teacher (L10) provided an example of how she works with “Emergent Literary Training” (Läslyftet in Swedish). She explained how teachers received professional development training in children’s reading and writing development. According to her, this type of work is relevant to the SDGs, for example, Goal 4 about quality education for all. She argued that teachers require such training since they lay the foundations for children to become good readers.

3.3. International and Local Collaboration

A few teachers claimed that young children need to acquire knowledge about other countries, to learn about different cultures, and to know that there are languages other than their own. One of the teachers described the collaboration her preschool had with a preschool in Canada:

It is important that children gain a wider perspective: i.e., the world is bigger than me, my family, my town, and my country. They think this is cool. They can speak a bit of English, but the most important thing is that they see that there are children on the other side of the Atlantic and it is absolutely fantastic. We can see them [the children in Canada] on a large screen. So we use IT a lot now—digital technology to create bridges, to build bridges between children. (L1)

The teacher (L1) explained that at her preschool, teachers invited non-Swedish members of staff to come to their preschool units to talk about their countries, languages, or festivals. She (L1) further explained how lesson plans include the festivities of non-Swedish children so as to encourage a sense of involvement and to provide opportunities for the children to learn about one another. Some preschools have a digital site for the publication of weekly activities and the sharing of information. By using digital technology, preschool children learn and see “What children in other places do and, for example, how they recycle in Canada” (L3).

Four years ago at another preschool, teachers began collaborating with preschool staff in Nepal. The aim of the collaboration was for the children to build friendships and solidarity. The teacher stated:

It [the place] is called Malagiri, in Nepal. We made contact with a preschool, you might say, and we helped each other with education and exchanges between the children. Our children have sent drawings there, and we have received drawings from them. Especially after the earthquake in Nepal, our children had the opportunity to see that they (the children in Nepal) did not have anything left. We wanted to support them, and we sent cuddly toys to the children. We have built a solar-powered shower, yes, solar panels; we have collected money for this so that we could help. (L4)

The teacher (L4) described how they sold plants and flowers, how the children made clay pots and other things, and how they collected toys and educational materials that they then sent to Nepal. The preschools maintain contact on Facebook. The teacher (L4) views the collaboration as extremely important since “There aren’t that many different cultures in this preschool. It is extremely homogeneous. Therefore, it is super important for our children to experience other cultures”.

To integrate global issues into preschool education, the teachers explained their use of smartboards and projectors to show children video clips and cartoons that are from different parts of the world. They also visit places, such as libraries and museums, and venture into nature, where they talk about global issues and connect them to what is happening locally. The teachers (e.g., L7, L10) gave examples of their collaboration with the outside community and the involvement of parents in various activities in preschool. According to one teacher (L7), parents are generally positive about EFS activities. She (L7) explained that “We know that the children even talk to their parents and the parents also informed us about them [EFS activities at preschool]”. A few teachers explained how they
regularly post their weekly work plans and activities on the preschool’s digital site so that parents can see what the children will be doing.

Teacher L10 stated that her preschool is involved in a form of social collaboration with a nearby home for the elderly, and that the children are often invited there to celebrate Lucia (an annual Swedish tradition celebrating St. Lucia on 13 December) and Easter, to bake for Christmas, to barbecue, and so on. She stated that:

*This collaboration began before the preschool took part in this (pre)school development project. But after we became involved in the project, we realized that it [collaboration] is actually very good. Just for the simple fact that the children get the opportunity to meet another generation and to get to know them.*... (L10)

The teacher (L10) also talked about the excellence of this form of collaboration among nations and between generations. According to her, the children enjoy both being with old people (and this is reciprocal) as well as knowing about the lives of people in other countries.

3.4. Preschool Children’s Participation and Agency in Social Sustainability Issues

Some teachers talked about children’s participation and actions, such as growing plants, taking care of the environment, and being a good friend, as being important aspects of EfS. Some teachers emphasized the need to listen to young children and to respect their opinions, which are factors stated in the convention on the rights of the child. One teacher described how in her preschool, she teaches children “...[T]o be critical thinkers so that they too can make this planet a better place ... we want to capture the thoughts, curiosity, and imagination of children, and connect these through play” (L4). Teacher L12 stated that “We must make children realize that even little steps can affect big steps. Everything we do has a consequence”.

The teachers provided examples of how children’s voices are heard and their opinions valued in planning and decision-making activities. Teacher L11 stated how she works with an EfS theme that interests children that the children themselves select. For example, she reported how children at her preschool became interested in learning more about water.

The teachers and children, working together, found out that:

*Water isn’t to be found everywhere [in the world]. Many countries do not have much water. What can we do about that? The children came up with different ideas about how those countries could be supplied with water. Perhaps we can install pipelines [to get water]. We searched different websites and found that UNICEF drills the ground for water. That way we try to work both locally and globally.* (L11)

She (L11) also stated how she talked about how to save water and how to help those who do not have water, food, or other essential items. Furthermore, she explained how their educational activities progressed from the theme of water to other issues, with focus on norms and values. She (L11) stated that “To be able to help someone, you must have empathy and an understanding that there are others, not just me. And what can I do so that we all can live well together?” Most teachers explained how the children participate in different activities together with teachers with themes such as the cycle of nature, litter-collecting week, experiments in nature, and recycling. One teacher (L11) explained that “They [the children] are extremely wise and when we started, especially with water consumption issues, we found out how much they already knew, how much curiosity they have and how many ideas they have”.

Four teachers (i.e., L4, L5, L11, L12) explained the importance of children’s involvement in discussions and of helping them to reflect on issues. Teacher L5 mentioned how she began a bird project after a child had been talking about winter birds. Some of the children in her group were curious to know why birds do not freeze, where they live, and where they fly to during winter. The children began to investigate birds, including how they live in other countries. The children planned ways to help vulnerable birds. The teacher (L5) stated that “In this way, we could include global thinking” with the children;
according to her, it does not need to be an advanced topic. The teacher (L5) described how the children painted birds and observed them in outdoor settings. Together with their teacher, they read books about birds, watched films, and used binoculars to observe them. Over time, the bird project grew to include many aspects, both environmental and social. For example, the children learned about the countries from where the birds came, the lifestyle of people in those countries, and their geographical position. One teacher (L3) said that children’s interests need to be taken into consideration in the planning and carrying out of EfS activities.

3.5. Challenges with Integrating Social Sustainability into Preschool Education

Indeed, the integration of social aspects of sustainability into EfS teaching at preschools was a matter of concern for many teachers. Teachers (L6 and L8) from two preschools stated that although they find working with EfS to be exciting, they also find it challenging because it requires knowledge and practical experience. It is especially challenging for those who have not worked with EfS before. This was mainly because most of the teachers’ knowledge and understanding in relation to sustainability was limited to environmental aspects of sustainability, at least until their involvement in the EfS school development project. One teacher stated how sustainability was really nothing more than environmental work for her and Green Flag (eco-certification) was a typical example of sustainability (L3).

In addition, teacher L9 stated that it was difficult to work with EfS because preschool teachers need to plan and prepare everything on their own as there is little teaching material that can be used for EfS teaching at preschool.

Two teachers (L11, L12) stated their initial concern about having an “extra workload” that might require a new way of working. The preschool teachers talked about how the activities at preschool are different from those in primary school and, therefore, how it is good to begin with EfS on a small scale, with focus on what the preschool teachers usually do, and then move towards the larger perspectives and global goals; otherwise, EfS may appear to be too complicated and abstract for preschool teachers.

4. Discussion

The main findings of our study are discussed below in relation to policy documents, international declarations, a literature review, and earlier studies.

4.1. Holism and Pluralism in the Teaching of Social Sustainability in Preschool

In light of the combined professional and school development project, it seems that the preschool teachers took their point of departure from a holistic approach to EfS when planning and designing their teaching activities. Themes in the results section clearly demonstrate teaching practices in which the integration of the contents represent all three dimensions of sustainability: the environmental, the social, and the economic. This finding is consistent with Gough’s [35] definition of holism in EfS. This holistic approach is recognized to be crucial in the teaching of sustainability [38], yet most of the teachers stated how for them, initially, EfS was entirely about the environment: it was only with training that they increased their understanding of the interrelationship between and interdependency of environmental, social, and economic dimensions. An example can be found in teachers’ work with mathematics in which they integrated issues like human behavior, human consumption pattern, and its impact on our nature. We can conclude that content-wise, the preschool teachers in this study included the social dimension; however, since this was a consequence of the TPD, these results do not necessarily translate to preschools in Sweden. What was also evident from our results is that most preschool teachers understood, and taught about, the three dimensions from an integrated perspective [34]. However, they seldom, if ever, included more critical perspectives in which priorities need to be made between the dimensions. From the excerpts in the results section, the harmony perspective [39] was the perspective promoted most, and conflicts were avoided. As can be seen in the excerpts, some teachers explicitly referred to ‘harmony’ as something they
aimed for. This may be an important aspect for future EfS research on preschools. A question that then emerges is whether it is possible to address these more complex conflict perspectives at the preschool level. If this aspect were to be developed in preschool teaching, we would suggest that the social dimension be the dimension to start with, because young children can relate to social experiences rather than environmental or economic ones, and in this way, they can draw from their everyday experiences when conflict perspectives are introduced.

Traces of pluralism were identified in the preschool teachers’ EfS practices. The children were encouraged to be critical thinkers, and their active participation was identified: this can be linked to pluralism at the preschool level [25,36,41], and is also an important aspect of the social dimension of EfS. However, in preschool education, it might be too abstract to introduce different standpoints and worldviews in the same way as is done in primary and especially secondary schools. In a study of EfS teaching in primary and secondary schools in Sweden, it was found that pluralistic teaching approaches had the most positive effect on pupils aged 15 to 16, while pupils aged 12 to 13 needed direction and frameworks to deal with the complexity of pluralism [40]. The question is to what extent are preschool children able to handle the uncertainty of pluralism, which, in contrast to transmissive teaching, needs more attention in educational development and research. However, freedom of will is necessary for the development of action competence [42], and, as shown by our results, at least some teachers developed such practices and allowed children to think critically. This more active aspect of social sustainability is important in EfS if the goal is to strive for action competence [44].

Consequently, Årlemalm and Sandberg [20] claim that to some extent, pluralism can be found in discussions between children and adults on topics related to social sustainability. However, they [20] argue that the children’s thoughts, understanding, and experiences rarely have an impact on daily preschool activities. In our study, we found some evidence that children were given such agency. Interestingly, such agency often revolved around environmental issues, such as water consumption and a bird project, but connected less so to social issues that would seem easier for preschool children to relate to. More research is needed to explore the challenges related to adopting pluralism in preschool education and to investigate whether preschool teachers find it difficult to come up with ideas to include pluralistic teaching practices.

4.2. Transformation of Preschool Teachers’ Views on and Practices of EfS

We would claim that the teachers argued for a transformative perspective on education at preschool, i.e., education that aims to change society and society to change education, which is important when social aspects of EfS are addressed. The idea that early childhood education should have an impact is not particularly controversial; indeed, that idea is mainstream (i.e., [3,4,24]). In the results section, the theme ‘International and Local Collaboration’ is an example of how society at large, or the authentic world, is brought into preschool teaching practices [1,5]. This is a strong aspect of transformative teaching practice in EfS that is about creating changes in the ways children think and act to make the world a better place and to care for people around us. Examples of this are the collaboration between preschool children in Sweden and Canada, and the collaboration between children in Sweden and Nepal. Such activities as these help children establish international friendships, allow them to learn about the lives of others, and help them develop respect for other cultures and languages, which are all points raised in the Swedish preschool curriculum [15] and which can all be argued to be innovative aspects of social sustainability. However, at the same time, many of the preschool teachers’ comments revealed quite normative standpoints, such as “We must make children realize that...” (L12), so their transformative standpoints were framed with a normative objective, which of course is in line with the curriculum, but might be questioned from a true transformative standpoint [31]. This finding shows that the preschool teachers do not totally embrace a transformative perspective where children are encouraged to find their own standpoints;
rather, the children are required, based on the experiences of the teachers themselves, to find a common, more collective pre-defined solution to sustainability issues. However, we would still conclude that when teachers and children were involved in day-to-day sustainability curriculum activities, they actively got engaged in social sustainability issues that could bring about change in society. These findings are supported by previous studies that explored teachers’ and children’s work with sustainability in preschool [25,27,49,58].

4.3. Connecting Global and Local Aspects of Sustainability in Preschool Education

The most common examples of educational activities that teachers mentioned included both the environmental and social aspects of sustainability, such as being out in nature, picking up litter in the forest, and developing empathy for others. These activities are commonplace in Swedish preschools, as apparent in other studies [20,27]. However, our study identifies a couple of rather novel activities related to social sustainability, such as international collaboration and respect for other cultures and people that relate directly to the content of SDG 4.7, which emphasizes “global citizenship and appreciation of cultural diversity and of culture’s contribution to sustainable development” [1] (p. 17). The example of these types of social sustainability issues were apparent in the results section where the children established friendships and solidarity between Sweden and Nepal with support from preschool teachers. This type of collaboration is not commonly found in regular preschools and signals a step towards implementing EfS [20]. Here we can see the possibility of developing future work to promote these aspects in preschool teaching practices.

The findings indicate the positive impact professional development has on teachers in terms of their understanding of the complexity of EfS from a holistic perspective and their being able to put EfS into practice while connecting SDGs with activities in a simple and innovative way. The results of this study support findings from previous studies [49,58,59] that show teachers’ participation in sustainability projects has a direct impact on their knowledge about sustainability as well as their practices of EfS from a holistic perspective. Therefore, to integrate social sustainability into preschool education, teachers need the opportunity to participate in in-service training or in (pre)school development projects to increase their level of sustainability competency.

4.4. Children’s Agency and Global Citizenship

Most of the teachers acknowledged the importance of children’s active participation in some of the activities, such as growing plants and caring for the environment, as well as the importance of helping them to become critical thinkers as a means to make the world a better place. They also gave some examples of how they listen to children and value their opinions in planning and decision-making activities. The Swedish preschool curriculum [15] (p. 17) strongly emphasizes how “Children have right to participation and influence”. This also relates to the UN Convention on the Rights of the Child (Article 12) [60]. However, it is not just enough to acknowledge children’s agency; rather, we need to explore how their agency can be enacted [61,62]. The global citizenship perspective promotes personal respect and respect for others, which also links to social sustainability. In this study, we noticed that preschool teachers and children were engaged in learning about the world from a global and local perspective. The children participated in the community and established contacts with children in Canada and Nepal, thereby developing respect for other cultures. These aspects connect to social sustainability in EfS and it is through such activities that children become global citizens [1].

4.5. Challenges with Integrating Social Sustainability into Preschool Education

At the start of the project, a couple of teachers worried about the extra work that may result from integrating EfS into their teaching activities—a common concern among teachers unfamiliar with working with EfS [27,63]. According to the teachers themselves, one reason for this concern was that they did not know how to integrate EfS—especially the
social and economic aspects—into preschool education. Another concern they highlighted was the lack of educational materials that incorporated the theme of social sustainability, and the fact they would have to prepare all the teaching materials themselves. This finding is in line with those of other studies showing there to be a lack of both practical activities and teaching materials [22,63,64]. What this indicates is the need for teaching materials that include not only environmental but also social and economic aspects of sustainability, especially now when the preschool curriculum has explicitly included EFS [15]. An area for improvement is thus to develop teaching materials relating to social sustainability if we want that aspect to be included in preschool teachers’ practices.

Although the teachers at the preschools involved in this study received the same professional development training, the results demonstrate that some preschools were more comfortable and advanced in how they integrated EFS, including the social dimension, than others. A reason for this could be that some teachers are personally committed to EFS and that they had worked with sustainability even before their involvement in the project. Previous studies concerning professional development research for EFS found that the introduction of change in practices towards sustainability is important since it grants the teacher authority (which encompasses responsibility, and decision-making power); resources and specialization (information, knowledge, and skills); and self-determination (initiative, creativity, and autonomy) [65,66]. If teachers are not given authority, resources and specialization, and self-determination, they will often fall back on former practices such as “greening issues” like composting and littering, as well as neglecting the social aspects of EFS. In future studies, it would be interesting to identify which of these three aspects empowers teachers in current TPD and why some teachers are more influenced than others.

4.6. Method Discussion

Since this study involved preschools that are part of a (pre)school development project and a professional development project for teachers in a single municipality, the findings are unlikely to represent all preschools in Sweden and should therefore not be generalized. For this study, we collected data by interviewing teachers. These findings could have been strengthened by adding observations of teachers’ educational practices to verify the interview results. As such, we would encourage further studies using these more direct methodologies.

5. Conclusions

The findings indicate that professional development training for teachers resulted in an increase in knowledge and a transformation in teaching practices at preschools when it came to the integration of social sustainability aspects, such as caring for oneself, for other people, and for the world from a holistic perspective. The teachers associated local sustainability challenges with those faced internationally. To a certain extent, children’s agency was noted in teaching activities that supported children’s active participation and engagement in various activities. The training was an eye-opener for the teachers, and it helped them to understand how the three dimensions of sustainability are interconnected and interdependent. Despite all the teachers being part of the (pre)school development project, their level of engagement with EFS teaching varied. The question thus arises as to how the same initiative and training can have different outcomes when it comes to knowledge and EFS practices, and what can be done to address this.

To conclude, it is important that teachers receive training that can help them to include the social dimension of EFS. From the findings of this study, it is possible to claim that some changes have taken place in preschool teaching practices related to the social dimension of EFS in terms of holism, pluralism, and transformation. SDG 4 states the need to increase the number of qualified and well-trained teachers by 2030, as teachers are the key to sustainability, and they need to be empowered [1]. Empowering teachers means empowering our future generation. Unless all levels of education actively address the implementation of Agenda 2030 for sustainability, the situation will remain unchanged.
We expect that the findings of this study may contribute to improve EfS teaching practices in preschools. The interviews made it apparent that the teachers initially viewed sustainability from an environmental perspective; however, after involvement in the school development project, they began to integrate the social sustainability dimension into their teaching. Further studies are needed to elucidate what aspects of the TPD program and local school development project induced the development of holism, pluralism, and transformative education in the participating preschools. Another question that also needs attention in research and development is how much agency and pluralism preschool children can handle.

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References
1. United Nations. Transforming Our World: The 2030 Agenda for Sustainable Development. pp. 8–12. Available online: http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E (accessed on 3 December 2015).
2. Wals, A.E.J.; Corcoran, P.B. Re-orienting, re-connecting and re-imaging: Learning-based responses to the challenge of (un)sustainability. In Learning for Sustainability in Times of Accelerating Change, 1st ed.; Wals, A.E.J., Corcoran, P.B., Eds.; Wageningen Academic Publishers: Wageningen, The Netherlands, 2012; pp. 21–32.
3. Eagly, A.H.; Chaiken, S. The Psychology of Attitudes; Harcourt Brace Jovanovich College Publishers: New York, NY, USA, 1993.
4. Muennig, P.; Robertson, D.; Johnson, G.; Campbell, F.; Pungello, E.P.; Neidell, M. The effect of an early education program on adult health: The Carolina Abecedarian project randomized controlled trial. Am. J. Public Health 2011, 101, 512–516. [CrossRef]
5. UNESCO. What Is Education for Sustainable Development? United Nations Educational, Scientific and Cultural Organisation. Available online: https://en.unesco.org/themes/education-sustainable-development/what-is-esd (accessed on 22 January 2019).
6. Johansson, E. The preschool child of today—The world-citizen of tomorrow? Int. J. Early Child. 2009, 41, 79–95. [CrossRef]
7. Wals, A.E.J. Message in a Bottle: Learning Our Way out of Unsustainability; Wageningen UR: Wageningen, The Netherlands, 2010; pp. 5–45.
8. Boldermo, S.; Ødegaard, E.E. What about the migrant children? The state-of-the-art in research claiming social sustainability. Sustainability 2019, 11, 459. [CrossRef]
9. Eizenberg, E.; Jabareen, Y. Social sustainability: A new conceptual framework. Sustainability 2017, 9, 68. [CrossRef]
10. Gericke, N.; Manni, A.; Stagell, U. The green school movement in Sweden—Past, present and future. In Green Schools Globally: Stories of Impact for Sustainable Development; Gough, A., Lee, J.C.K., Tsang, E.P.K., Eds.; Springer International Publishing: Cham, Switzerland, 2020; pp. 309–332.
11. Skolverket (Swedish National Agency for Education). Preschool and Preschool Class. For Your Child Aged 1–6. Available online: http://www.omsvenskaskolan.se/engelska/foerskolan-och-foerskoleklass/ (accessed on 20 March 2017).
12. Skolverket (Swedish National Agency for Education). Beskrivande Data 2016 Förskola, Skola Och Vuxenutbildning; Skolverket: Stockholm, Sweden, 2017.
13. Jönsson, I.; Sandell, A.; Tallberg-Broman, I. Change or Paradigm Shift in the Swedish Preschool? Sociol. Pr obl. E Prácticas 2012, 69, 47–61.
14. Sandberg, A.; Ärlemalm-Hagsér, E. The Swedish National Curriculum: Play and Learning with Fundamental Values in Focus. Australas. J. Early Child. 2011, 36, 44–50. [CrossRef]
15. Skolverket (Swedish National Agency for Education). Curriculum for the Preschool Lpfö 2018; Skolverket: Stockholm, Sweden, 2018; pp. 5–21.
16. Samuelsson, I.P.; Björklund, C. Det klassiska temaarbetet-i ett didaktiskt ljus. In Innehållets Didaktik i Förskolan; Björklund, C., Pramling Samuelsson, I., Eds.; Liber: Stockholm, Sweden, 2020; pp. 136–145.
17. Weldemariam, K.; Boyd, D.; Hirst, N.; Sageidet, B.M.; Browder, J.K.; Grogan, L.; Hughes, F. A critical analysis of concepts associated with sustainability in early childhood curriculum frameworks across five national contexts. Int. J. Early Child. 2017, 49, 333–351. [CrossRef]
18. Ärlemalm-Hagsér, E.; Pramling Samuelsson, I. Kulturer av hållbarhet–förskolebarns aktörskap och meningskapande. In Barndom, Lärande Och Amnesdidaktik; Tallberg Broman, I., Pramling Samuelsson, I., Eds.; Studentlitteratur: Lund, Sweden, 2013; pp. 143–163.
19. Davis, J.M. What is early childhood education for sustainability and why does it matter? In Young Children and the Environment: Early Education for Sustainability, 2nd ed.; Davis, J.M., Ed.; Cambridge University Press: Port Melbourne, Australia, 2015; pp. 7–31.
20. Ärlemalm-Hagsér, E.; Sundberg, B. Naturnöten och källsortering—En kvantitativ studie om lärande för hållbar utveckling i förskolan. Nord. Stud. Sci. Educ. 2016, 12, 140–156. [CrossRef]
21. Davis, J. Revealing the research “hole” of early childhood education for sustainability: A preliminary survey of the literature. Environ. Educ. Res. 2009, 15, 227–241. [CrossRef]
22. Hede Falk, M.; Almqvist, J.; Östman, L. Education for sustainable development in early childhood education: A review of the research literature. Environ. Educ. Res. 2015, 21, 975–990. [CrossRef]
23. Kultti, A.; Larsson, J.; Ärlemalm-Hagsér, E.; Pramling-Samuelsson, I. Early childhood education for sustainable development in Sweden. In International Research on Education for Sustainable Development in Early Childhood; Siraj-Blatchford, J., Mogharreban, C., Park, E., Eds.; Springer International Publishing: Cham, Switzerland, 2016; pp. 123–137.
24. Pramling Samuelsson, I. Why we should begin early with ESD: The role of early childhood education. Int. J. Early Child. 2011, 43, 103–118. [CrossRef]
25. Sandberg, A.; Lillqvist, A.; Ärlemalm-Hagsér, E. Undervisning i olika lärmiljöer i förskolan. In Undervisning i förskolan: En kunskapsöversikt; Sonja, S., Pia, W., Eds.; Skolverket: Stockholm, Sweden, 2018; pp. 92–99.
26. Sommer, D.; Pramling Samuelsson, I.; Hundeide, K. Child Perspectives and Children’s Perspectives in Theory and Practice. International Perspectives on Early Childhood Education and Development 2; Springer: London, UK; New York, NY, USA, 2010; pp. 1–23.
27. Ärlemalm-Hagsér, E.; Hede Falk, M. Tema: Förskolan och utbildning för hållbar utveckling. Nordisk forskning inom fältet förskolan och hållbarhet. In Utbildning & Demokrati: Tidsskrift för Didaktik Och Utbildningspolitik; Langmann, E., Ljunggren, C., Eds.; Örebro universitet: Örebro, Sweden, 2018; Volume 27, pp. 7–14.
28. Morris, H.; Edwards, S.; Cutter-Mackenzie, A.; Rutherford, L.; Williams-Smith, J.; Skouteris, H. Evaluating the impact of teacher-designed, wellbeing and sustainability play-based learning experiences on young children’s knowledge connections: A randomised trial. Australas. J. Early Child. 2018, 43, 33–42. [CrossRef]
29. Borg, F.; Winberg, M.; Vinterek, M. Children’s learning for a sustainable society: Influences from home and preschool. Educ. Inq. 2017, 8, 151–172. [CrossRef]
30. Ärlemalm-Hagsér, E.; Engagerade i Världens Bästa?: Lärande för Hållbarhet i Förskolan; Acta Universitatis Gothoburgensis: Gothenburg, Sweden, 2013.
31. Jickling, B.; Wals, A.E. Globalization and environmental education: Looking beyond sustainable development. J. Curric. Stud. 2008, 40, 1–21. [CrossRef]
32. Van Poeck, K.; Goeminne, G.; Vandenameele, J. Revisiting the democratic paradox of environmental and sustainability education: Sustainability issues as matters of concern. Environ. Educ. Res. 2016, 22, 806–826. [CrossRef]
33. Vare, P.; Scott, W. Learning for a change: Exploring the relationship between education and sustainable development. J. Educ. Sustain. Dev. 2007, 1, 191–198. [CrossRef]
34. Berglund, T.; Gericke, N. Separated and integrated perspectives on environmental, economic, and social dimensions—An investigation of student views on sustainable development. Environ. Educ. Res. 2016, 22, 1115–1138. [CrossRef]
35. Gough, S. Right answers or wrong problems? Towards a theory of change for environmental learning. Trumpeter J. Ecosophy 2002, 18, 1–15.
36. Öhman, J. Environmental ethics and democratic responsibility—A pluralistic approach to ESD. In Values and Democracy in Education for Sustainable Development: Contributions from Swedish Research; Öhman, J., Ed.; Liber: Malmö, Sweden, 2008; pp. 17–32.
37. UNESCO. United Nations Decade of Education for Sustainable Development 2005–2014: UNESCO International Implementation Scheme; United Nations Educational, Scientific and Cultural Organisation: Paris, France, 2005; ED/2005/ESD/3.
38. Tilbury, D. Learning to Connect: Reflections along a Personal Journey of Education and Learning for a Sustainable Future in the Context of Rio + 20. J. Educ. Sustain. Dev. 2012, 6, 59–62. [CrossRef]
93. Öhman, M.; Öhman, J. Harmoni eller konflikt?—En fallstudie av meningsinnehållet i utbildning för hållbar utveckling [Harmony or Conflict?—A Case Study of the Conceptual Meaning of Education for Sustainable Development]. Nord. Stud. Sci. Educ. 2012, 8, 59–72. [CrossRef]

94. Boeve-de Pauw, J.; Gericke, N.; Olsson, D.; Berglund, T. The Effectiveness of education for sustainable development. Sustainability 2015, 7, 15693–15717. [CrossRef]

95. Rudsberg, K.; Öhman, J. Pluralism in practice: Experiences from Swedish evaluation, school development and research. Environ. Educ. Res. 2010, 16, 95–111. [CrossRef]

96. Mogensen, F.; Schnack, K. The action competence approach and the “new” discourses of education for sustainable development, competence and quality criteria. Environ. Educ. Res. 2010, 16, 59–74. [CrossRef]

97. Jensen, B.B. Health knowledge and health education in the democratic health-promoting school. Health Educ. Res. 2000, 100, 146–154. [CrossRef]

98. Sass, W.; Boeve-de Pauw, J.; Olsson, D.; Gericke, N.; De Maeyer, S.; van Petegem, P. Redefining action competence: The case of sustainable development. J. Environ. Educ. 2020, 51, 292–305. [CrossRef]

99. Mezirow, J. An overview on transformative learning. In Contemporary Theories of Learning: Learning Theorists in their Own Words; Illeris, K., Ed.; Routledge: London, UK, 2009; pp. 90–105. [CrossRef]

100. JTED. Journal of Transformative Education. Available online: https://journals.sagepub.com/description/JTD (accessed on 11 February 2021).

101. Hargreaves, L. The whole-school approach to education for sustainable development: From pilot projects to systemic change. Policy Pract. A Dev. Educ. Res. 2008, 6, 69–74.

102. Mognen, A.; Gericke, N.; Scherp, H.-Å. Whole school approaches to education for sustainable development: A model that links to school improvement. Environ. Educ. Res. 2018, 25, 508–531. [CrossRef]

103. Borg, F. A case study of a Green Flag-certified preschool in Sweden. Hung. Educ. Res. J. 2019, 9, 607–627. [CrossRef]

104. Desimone, L.M. Improving impact studies of teachers’ professional development: Toward better conceptualizations and measures. Educ. Res. 2009, 38, 181–199. [CrossRef]

105. Timperley, H. Realizing the Power of Professional Learning; McGraw-Hill Education: London, UK, 2011.

106. Avery, H.; Nordén, B. Working with the divides: Two critical axes in development for transformative professional practices. Int. J. Sustain. High. Educ. 2017, 18, 666–680. [CrossRef]

107. Cohen, L.; Manion, L.; Morrison, K. Research Methods in Education, 7th ed.; Routledge: London, UK; New York, NY, USA, 2011; pp. 409–444.

108. Braun, V.; Clarke, V. Using thematic analysis in psychology. Qual. Res. Psychol. 1994, 3, 77–101. [CrossRef]

109. Miles, M.; Huberman, A.M. Qualitative Data Analysis; Sage: Beverly Hills, CA, USA, 1994.

110. Boyatzis, R.E. Transforming Qualitative Information: Thematic Analysis and Code Development; Sage: Thousand Oaks, CA, USA, 1998.

111. Vetenskapsrådet. Good Research Practice; The Swedish Research Council. Available online: https://www.vr.se/download/18.5639980c162791bble697882/1529480529472/Good-Research-Practice_VR_2017.pdf (accessed on 14 May 2017).

112. Davis, J. Educating for sustainability in the early years: Creating cultural change in a child care setting. Aust. J. Environ. Educ. 2005, 21, 47–55. [CrossRef]

113. Cebrián, G.; Pascual, D.; Moraleda, Á. Perception of sustainability competencies amongst Spanish pre-service secondary school teachers. Int. J. Sustain. High. Educ. 2019, 20, 1171–1190. [CrossRef]

114. UNICEF. Convention the Rights of the Child 1989. Available online: http://wunrn.org/reference/pdf/Convention_Rights_Child.PDF (accessed on 3 October 2016).

115. Caiman, C.; Lundegård, I. Preschool Children’s Agency in Learning for Sustainable Development. Environ. Educ. Res. 2014, 20, 437–459. [CrossRef]

116. Hedefalk, M.; Almqvist, J.; Lidar, M. Teaching for Action Competence. SAGE Open 2014, 4. [CrossRef]

117. Borg, C.; Gericke, N.; Höglund, H.-O.; Bergman, E. The barriers encountered by teachers implementing education for sustainable development: Discipline bound differences and teaching traditions. Res. Sci. Technol. Educ. 2012, 30, 185–207. [CrossRef]

118. Park, E.; Pramling Samuelsson, I. A Study of Swedish and Korean Early Childhood Teachers’ Perception and Attitude on Education for Sustainability. In Proceedings of the 68th World Assembly and International Conference of OMEP, Seoul, Korea, 4–8 July 2017.

119. Verhulst, E.; Boks, C. Employee Empowerment for Sustainable Design. J. Corp. Citizsh. 2014, 55, 73–101. [CrossRef]

120. Lambrechts, W.; Verhulst, E.; Rymenams, S. Professional development of sustainability competences in higher education: The role of empowerment. Int. J. Sustain. High. Educ. 2017, 18, 1467–1530. [CrossRef]