Preschool children’s agency in education for sustainability: the case of Sweden

Farhana Borg a and Ingrid Pramling Samuelsson b

aSchool of Teacher Education, Dalarna University, Falun, Sweden; bDepartment of Education, Communication and Learning, Gothenburg University, Gothenburg, Sweden

ABSTRACT

Although children’s participation and agency are highly prioritized in early childhood education for sustainability, both researchers and educators have paid little attention to this topic. This paper explores how the revised preschool curriculum Lpfö2018 in Sweden addresses education for sustainability (EfS) with regards to children’s participation and agency. A sociocultural perspective on agency combined with a holistic view of sustainability was used, while a critical content analysis was conducted to investigate major changes in the curriculum in relation to both EfS and children’s participation and agency. Findings show that the curriculum Lpfö2018 has explicitly introduced the concept of sustainability from a holistic perspective, integrating environmental, social, and economic dimensions. Children are recognized as competent beings who can actively participate in and influence their learning. Moreover, the notion of transformative learning has been observed in the curriculum, which emphasizes changes in the ways children think, act, and learn in relation to sustainability.

KEYWORDS

Agency; child rights; early childhood education; participation; preschool curriculum analysis; sustainable development

Introduction

Although children’s participation and agency are highly prioritized in early childhood education for sustainability (ECEfS) internationally, researchers claim that little attention is paid to children’s agency for learning or their right to participate (Berthelsen and Brownlee 2005; Davis 2015; Årlemalm-Hagsér and Davis 2014). Children’s agency refers to the ability of children to participate in all matters that concern their lives, to having their voices heard, and to having their opinions respected. It also refers to making choices and decisions regarding daily activities, and to acquiring action competence needed for a sustainable society (James 2009). Viewing children as active participants in their own learning means viewing them as agents in their everyday life (Williams, Sheridan, and Pramling Samuelsson 2016).

The original concept of sustainability was introduced in the Brundtland Report as a ‘development that meets the needs of the present without compromising the ability of
future generations to meet their own needs’ (WCED 1987, 47). To promote a sustainable future for people and the planet, UNESCO (2015) identified education for sustainability (EfS) as a main tool. EfS reorients education and learning by creating opportunities for everyone to acquire knowledge, skills, values, and behaviors needed for a sustainability future.

At a time of accelerating changes and globalization, the United Nations (UN) Convention on the Rights of the Child (UNICEF 1989) became law in Sweden in 2020. Although the concept of sustainability has long been on the agenda in Sweden, the term sustainability has only recently been explicitly incorporated into the latest revised preschool curriculum Lpfö2018 (Skolverket 2018). Moreover, despite Sweden being considered a pioneer in the field of sustainability, children have not been formally recognized as competent citizens or agents of change for a sustainable future within the Swedish curriculum framework (Ärlemalm-Hagsér and Davis 2014). This has led to a need to explore how children’s right to participation and agency are addressed in the curriculum Lpfö2018, especially with regards to EfS. Therefore, the objectives of this study were:

- to identify major changes in the preschool curriculum Lpfö2018 concerning sustainability and EfS,
- to investigate how EfS is addressed with regards to young children’s participation and agency, and
- to discuss these findings in relation to relevant national and international policy documents and published empirical research.

**Swedish preschool education**

Preschool (förskola) is the official name of all organized day-care settings in Sweden for children below school age, which is normally six. Preschools are free of charge and available to children from three years of age for at least 15 h a week; some municipalities may even offer more free hours. Full-time preschool costs a maximum of about USD 140 per month. Almost 90% of children in Sweden are enrolled in preschool before the age of two, indicating the trust parents have in preschool.

Preschool education in Sweden combines learning and play, and care and the fostering of fundamental values (Sandberg and Ärlemalm-Hagsér 2011). The preschool curriculum is a legally binding document that guides programs and staff. The curriculum points out the mission, values, perspective on learning and wellbeing, and teaching goals, but it does not set goals for the individual child. Since 1998, several reforms in Sweden have challenged the idea of educare, which is a mix of good-quality care and education. In an international context, the Swedish preschool has often been described as having a good model of educare (Jönsson, Sandell, and Tallberg-Broman 2012).

**The notion of a good childhood**

In Sweden, the aim is to give all children an equal start in life: as such, preschool fees are low, while the Swedish National Curriculum from 1998 (Skolverket 1998) serves to guarantee that all children receive the same education while having a place to play. A study
conducted in the early 1970s asked parents about their preschool child’s life before school and compared the situation in Sweden with that in Belgium and Holland (Austin et al. 1975). The results showed that Swedes had a very romantic view of play, which can be summarized as follows: ‘let children just play until they begin school at 7 (which was the school entry age at that time); they will have plenty of time to learn in school’ (Austin et al. 1975). Play remains a significant feature of the preschool day, and the debate between teachers is often about play as free from adults and play as related to learning, and if and how play and learning can be integrated with each other (Pramling Samuelsson and Asplund Carlsson 2008). The results of another study show how teachers can be part of children’s play in a play-responsive manner where they are accepted by children and can challenge children’s learning in different areas (Pramling et al. 2019). These results are in line with the revised curriculum, which states:

> When someone in the work team follows or leads play appropriately, either outside the games or by participating themselves, factors that limit play can be noticed and work methods and environments conducive to play are developed. (Skolverket 2018, 9)

This indicates that the current role of the teacher in play is considered important, whereas before, play was mainly looked upon as free play – that is to say, free from adult involvement.

**Democratic principles in Swedish preschool**

The two related yet separate notions ‘child perspective’ and ‘children’s perspectives’ are widely used in Scandinavian curricula (Sommer, Pramling Samuelsson, and Hundeide 2009). The child perspective relates to child-centeredness or to the UN Convention on the Rights of the Child, which means doing what is best for the child (Article 3). This perspective has long had a place in early childhood education in Sweden. The other perspective, i.e. children’s perspectives, relates to democracy, and is about listening to and negotiating with children, and trying to see things from their perspective (Doverborg and Pramling Samuelsson 2012). Wagner (2006) compared the USA with the Nordic countries, and claimed that democracy is practiced in ECE in the Nordic countries, while in the USA, children read about democracy in school and are then expected to put it into practice as adults. However, this does not mean that all preschools in the Nordic countries are excellent in this regard: indeed, the quality of Swedish preschools varies greatly (Sheridan, Pramling Samuelsson, and Johansson 2009).

**Context and significance of our study**

Although the number of studies in early childhood education is on the rise, a few studies in Sweden explored how sustainability related concepts have been addressed in preschool curricula. In 2014, Årlemalm-Hagsér and Davis compared the preschool curricula of Australia (DEEWR 2009) and Sweden (Skolverket 2010) using four themes: inclusion of concepts of sustainability; recognition of human place in nature and environmental stewardship; critical thinking for sustainability; and reference to children as active agents and citizens participating for change. Building on Årlemalm-Hagsér and Davis (2014) study, Weldemariam et al. (2017) compared the preschool curricula of five
countries: Australia (DEEWR 2009), England (Department for Education 2017), Norway (Ministry of Education and Research 2017), Sweden (Skolverket 2016), and the USA (Office of Head Start 2015) in light of four characteristics of each respective curriculum: presence of sustainability; views of the child; human-environment relationships; and philosophical and theoretical underpinnings. Both studies reveal that Swedish curricula for preschool Lpfö98 rev. 2010 and rev. 2016 did not use the term sustainability and the conceptual understandings of sustainability were lacking. However, the findings indicate that taking action for an ecologically sustainable society was highlighted in the curricula Lpfö98 rev. 2010 and rev. 2016. Weldemariam et al. (2017) argued that children’s agency appeared to be limited at the individual and school level, but that the curriculum portrayed children as world citizens who can be actively engaged in local and global issues.

Following the recommendation of Ärlemalm-Hagsér and Davis (2014) as well as Weldemariam et al. (2017), we conducted an analysis of the revised preschool curriculum Lpfö2018 so as to investigate any major changes as well as the concept of sustainability and EfS in relation to children’s participation and agency. Since the curriculum plays an important role in guiding preschool teachers’ educational activities, findings from this study can be valuable for educators who are responsible for integrating sustainability at all levels of education.

**Methods**

To analyse the preschool curriculum Lpfö2018, the authors used critical content analysis that aims to examine, summarize, and report the main contents of written data and their messages (Cohen, Manion, and Morrison 2011). In this study, the authors conducted a digital search of the curriculum (both English and Swedish) using the search terms ‘participation (deltagande)’, ‘sustainability (hållbarhet)’ and ‘sustainable development (hållbar utveckling)’ to investigate the use of the terms and their contexts. The analysis started with small parts of the text as units of coding, and both researchers were involved in the whole analysis process including writing the manuscript. These units along with their contexts were read and re-read so that the researchers thoroughly familiarized themselves with their content, terms, and language.

In addition, the whole curriculum Lpfö2018 was read and discussed by the researchers to identify additional information about, for example, the approach to EfS that is used; about whether children’s participation and agency are addressed – and if so in what way – in relation to social, environmental, and economic sustainability; and about any new issues. The authors are well-acquainted with the preschool curricula (Skolverket 1998, rev. 2010 and rev. 2016) in Sweden. We began our analysis by thoroughly scrutinizing the content and features of the curriculum Lpfö2018. The preliminary findings of the analysis have been presented at an international conference, and we incorporated participants’ comments and input into our study (see Borg and Pramling Samuelsson 2019). The analysis was conducted to explore how the term sustainability was used, and how children’s participation and agency have been addressed in relation to EfS. A sociocultural perspective on agency combined with a holistic view of sustainability was used, while a critical content analysis was conducted to investigate major changes in the curriculum in relation to both EfS and children’s participation and agency.
A holistic understanding of sustainability and EfS

This study employs a holistic understanding of sustainability that focuses on the inter-relationship and interdependency issues of environmental, social, and economic aspects. The social dimension addresses issues such as human rights, health, cultural diversity, and gender equality; the environmental dimension deals with natural resources, climate change, and sustainable urbanization; and the economic dimension focuses on the production and consumption of natural resources, poverty reduction, and solidarity between people and countries (UNESCO 2006). Acknowledging the intertwined nature and holistic view of sustainability (Elliott 2013; Gough 2002), the researchers used the three dimensions of sustainability to investigate how the concept of sustainability is addressed in the curriculum Lpfö2018.

Sustainability is characterized by different and often even contrasting opinions about how to arrive at a solution to a problem. EfS is considered a tool for present and future generations to empower themselves to make conscious decisions and to take active responsibility for social, economic, and environmental sustainability. EfS takes different perspectives, views, and values into account, and it creates action-competent individuals (Rudsberg and Öhman 2010).

Quality education, one of the 17 sustainable development goals (SDGs), is emphasized as being key to achieving a more sustainable world (United Nations 2015). To achieve this goal by 2030, all learners must acquire knowledge and skills that are necessary to promote sustainability through EfS, sustainable lifestyles, human rights, and global citizenship. The global goals are integrated and balance the three dimensions of sustainability, these being environmental, social/cultural, and economic.

Children’s active participation and agency in sustainability

Children’s active and creative participation in activities in social contexts is important to their learning (Corsaro, Molinary, and Rosier 2002). Shier (2001) uses five levels in a hierarchical model to define children’s participation: 1) children are listened to; 2) children are encouraged to express their views; 3) children’s views are respected and taken into account; 4) children are involved in decision-making processes; and 5) children can influence issues that are relevant to them. Shier’s hierarchical model is used to discuss the findings on children’s participation in Lpfö2018.

Agency can be understood as relational, contextually situated, and emerging from interactions between a child and her or his social context (Biesta and Tedder 2007; Schwartz and Okita 2009; Wertsch, Tulviste, and Hagstrom 1996). This context comprises activities, material resources, relationships, and interactions (Barron 2006). Sairanen and Kumpulainen (2014) have shown the sociocultural embeddedness of preschool children’s sense of agency in educational settings, while studies have reported that preschool teachers’ interactions with children can create space for their agency: for example, Houen et al. (2016) found that when preschool teachers use the expression ‘I wonder’ in their interactions, the communication opens up for children to be agents.

Children actively construct their experiences of the world. They learn and develop by interacting actively with others and by participating in different activities (Bandura 2001; Corsaro 2005). In ECEfS, children are viewed as agents of change with the capacity to be
involved in various issues related to sustainability (Davis 2015). Since learning is supposed to lead to transformation, the notion of transformative learning is central to EfS (Blake, Sterling, and Goodson 2013). In preschool education, transformation is about ‘creating changes in the ways children think, act, and learn in relation to sustainability issues, topics and practices’ (Davis 2015, 23), which ultimately helps children become agents of change.

**Ethical consideration**

On the subject of ethical considerations, it can be noted that this study is a content analysis of the preschool curriculum Lpfö2018 (Skolverket 2018) and did not involve any collection or use of personal data. As such, no ethical vetting was sought. The authors conducted the study carefully and did not manipulate the results. The context of the units of coding was taken into account in the analysis.

**Findings and discussions**

The findings of the analysis are presented under five themes: Major Changes in the curriculum Lpfö2018; Use of the Concept Sustainability; A Holistic and Integrated Approach to EfS; Children’s Active Participation; and Children’s Agency. The findings are also discussed in relation to published empirical research, analyses of previous curricula (Alvestad and Pramling Samuelsson 1999; Ärlemalm-Hagsér and Davis 2014; and Weldemariam et al. 2017) as well as international policy documents, such as the 2030 Agenda for Sustainability (United Nations 2015) and the Convention on the Rights of the Child (UNICEF 1989).

**Major changes in the curriculum Lpfö2018**

Since coming into force in 1998, the curriculum has been revised four times – in 2006, 2010, 2016, and 2018 – with either minor or major changes. In each revised curriculum, the perspective of children remains unchanged; they are described as competent individuals. The first curriculum Lpfö1998 and the most recently revised one, Lpfö2018, are both about 20 pages long. The major revisions (described below) were made to the curriculum Lpfö2018 because an evaluation by OECD pointed out that the Swedish preschool curriculum was not sufficiently multicultural and did not include the UN global goals for sustainability (OECD 2017). This is important because every country must report to the UN about the work it is doing to achieve the global goals, since pre-primary education is included in goal 4.2 stating that by 2030, all children should have access to quality early childhood development, care, and pre-primary education (United Nations 2015).

In the revised curriculum Lpfö2018, the concept sustainability or sustainable development (hållbar utveckling) has been introduced and is used explicitly eight times – and for the first time along with the newly added concepts of education (utbildning) and teaching (undervisning) in preschool. Education and teaching are notions that relate directly to Sweden’s Education Act (SFS 2010, 800), which now includes preschool as a special form of education. The curriculum Lpfö2018 states that:
Teaching in the preschool should take place under the leadership of preschool teachers and promote the children’s development and learning through the acquisition and development of knowledge and values. Preschool teachers should lead the goal-oriented process and assume responsibility in teaching for care, development and learning forming a whole. (Skolverket 2018, 20)

There has long been debate among preschool professionals on preschool teaching, and numerous texts of various kinds have been published on this issue (see, for example, Doverborg, Pramling, and Pramling Samuelsson 2013; Eidevald and Engdahl 2018; Björklund, Pramling Samuelsson, and Reis 2018; Melker and Pramling Samuelsson 2020). A great concern among preschool teachers has been the concept of teaching and what it means in practice since teaching is perceived, by most preschool teachers, to be linked to school education (Vallberg Roth 2017). Teaching can take place in spontaneous activities as well as in planned experiences.

In addition, the concept of fostering (fostra) children at preschool was deleted from the curriculum Lpfö2018, while the concepts of care (omsorg) and well-being (välbefindande) were expanded in relation to education and teaching (Borg and Pramling Samuelsson 2019). The new curriculum emphasizes the preschool teacher’s responsibility to ensure that each child is given good care with a balance between activity and rest. Vallberg Roth (2017) claims that the focus of preschools has been on learning, not teaching. Lofdahl and Folke-Fichtelius (2015) are two researchers who argue that the emphasis on children’s learning has resulted in care taking second place in order of priority.

Fostering may have been deleted because the connotation is then that somebody (the teacher) has direct influence over somebody else (the child): the teacher, who knows how to behave will ensure the child does so. Furthermore, since theories on which the curriculum is based relate to interaction and communication, as well as negotiation of meaning, we argue that the word fostering feels neither suitable nor appropriate. With fostering, it can be hard to find a place for children’s agency or their perspectives.

**Use of the concept sustainability**

Analyses of previous curricula, such as Lpfö1998, rev. 2010 and rev. 2016, show that despite being mentioned in supporting policy documents, the concept sustainability was not explicitly used in the curricula (Alvestad and Pramling Samuelsson 1999; Elliott et al. 2017; Weldemariam et al. 2017; Ärlemalm-Hagsér and Davis 2014). Weldemariam et al. (2017, 344) expressed their concerns about the inexplicit use of the concept sustainability in the curriculum, describing this as a hindrance for ‘meaningful engagement with sustainability in preschool settings’.

However, in the curriculum Lpfö2018, the term sustainability is explicitly used and under the sections *Fundamental Values and Task* and *Goals and Guidelines*, the curriculum states that the preschool shall lay the foundation for children’s growing interests and active participation in society and for sustainability. Furthermore, it states that ‘everyone who works in the preschool should promote respect for the intrinsic value of every person and strive for sustainable development’ (Skolverket 2018, 5).

The curriculum Lpfö2018 includes several *Goals and Guidelines* concerning sustainability; for example, under the section *Norms and Values*, it states that preschool should provide each child with the opportunity to develop ‘a growing responsibility
for and interest in sustainable development and active participation in society’ (Skolverket 2018, 13). This goal in the curriculum can be related to *global citizenship*, which is one of the ideas presented in SDG 4.7 (United Nations 2015). The content that forms sustainability from an educational perspective is *global citizenship*, which is about people feeling united with the world. For preschool children, this is about being ‘citizens’ in the preschool – with all that means – who have both responsibilities and rights; more generally, it means being a fellow human being. However, when children talk about global issues, they do it in their own local context. Global for the youngest age group means local citizenship in the preschool. Preschool is a society in miniature, where children can practice their rights and ideas, and act and receive feedback from other children and the teacher.

In terms of developing children’s understanding of themselves and their environments, the curriculum Lpfö2018 states that ‘Preschool should provide each child with the conditions to develop an understanding of how different choices people make in everyday life can contribute to sustainable development’ (Skolverket 2018, 15). This statement concerns our lifestyles, which relates directly to SDG 12, which is about ensuring sustainable consumption and production patterns. We acknowledge that a child aged six will not be able to meet the goals in the curriculum upon completion of preschool. Nevertheless, since EfS is about life-long learning, the process of learning needs to begin at an early age. EfS can be ‘both content (the object of learning) and a way of working with children (the act of learning) in the early years’ (Pramling Samuelsson 2011, 103).

**A holistic and integrated approach to EfS**

Our analysis revealed that for the first time, the curriculum explicitly uses the term sustainability from a holistic perspective, thus showing that the social, environmental, and economic dimensions are interconnected. The analysis also indicates that EfS is an important aspect in the curriculum Lpfö2018 (Borg and Gericke 2021). EfS emphasizes the pluralistic teaching methods that include different worldviews and values, as well as the pluralistic teaching methods deal with the process of teaching and learning focusing on the development of skills and competence of children for sustainability. Pluralistic teaching methods emphasizes the importance of reflecting on complex issues instead of teaching the ‘right’ answers (Rudsberg and Öhman 2010). Further studies are needed to explore if and how pluralistic methods can be useful for teaching at preschool. The revised curriculum points out that environmental, social, and economic dimensions are inseparable and indivisible, something also mentioned in the 2030 Agenda for Sustainability (United Nations 2015). An analysis of the curriculum is presented in Table 1 below.

In Lpfö2018, democracy, care for others, child rights, creating global citizens and embracing common values and taking responsibility are fundamental values that relate to sustainability. The curriculum Lpfö2018 states that:

> Education should be undertaken in democratic forms and lay the foundation for a growing interest and responsibility among children for active participation in civic life and for sustainable development – not only economic, but also social and environmental. (Skolverket 2018, 5)
Similarly, under the section Sustainable Development, Health and Well-Being, the curriculum states how preschool education must be characterized by a positive belief in the future and how children should have the opportunity to acquire an ecological and caring approach to their surrounding environment, including nature and society, from a holistic perspective. It also 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. (Skolverket 2018, 10)

Studies show that the social and economic dimensions of sustainability are often missing in early childhood education, and that teachers often find it challenging and problematic to integrate all three dimensions into preschool education (Borg and Gericke 2021; Davis 2009; Hedefalk, Almqvist, and Lidar 2014).

Environmental education has always been an important part of Swedish preschool education. The link between children and the environment has often been emphasized as being an important objective in young children’s learning (Ärlemalm-Hagsér and Davis 2014; Borg 2019). However, studies revealed that preschool education in Sweden, and internationally, focuses on children’s experiences in nature, recycling, and composting (Davis 2009; Hedefalk, Almqvist, and Lidar 2014; Ärlemalm-Hagsér and Sundberg 2016). One of the reasons for this is that teachers often consider the interconnected aspects of the environmental, social, and economic dimensions of sustainability problematic, unclear, and confusing when they incorporate them into their daily

| Sections in Lpfö2018 | Use of the Concept Sustainability & EFS | Children’s Active Participation | Children’s Agency |
|----------------------|---------------------------------------|-------------------------------|------------------|
| Fundamental values and task of the preschool (see pp. 5-12) | Explicitly mentioned with three dimensions: social, economic, and environmental; strong emphasis on interconnectedness of three dimensions and a holistic understanding of sustainability; caring approach to the surrounding environment, nature, and society; a positive belief in the future; striving for sustainability and promoting health and well-being of children. | A growing interest in active participation in civic life, in society, in physical activities; respect for the values and rights expressed in the UN Convention on the Rights of the Child; making children aware of their rights; active participation in planning their learning and growing respect for democratic values. | Having the capacity to be critical thinkers; determining their learning; competent and agentic; being responsible people and members of society; forming their own views and making choices; having the right to influence; children’s voices being heard, and their opinions being incorporated into education. |
| Goals and guidelines (see, pp. 13-20) | Explicitly mentioned in relation to addressing equal value of all people and human rights, growing responsibility for sustainability, understanding relationships in nature, and how people, nature and society affect each other; how daily choices can contribute to sustainability; understanding themselves and the environment. | Developing responsibility for active participation in society; promoting the ability to participate and influence their education; discovering new ways of understanding the world; growing interest in sustainability and active participation in society. | Embracing common values and the ability to function individually and in a group; ability to handle conflicts; listening to others and having influence over their education; shaping the environment and planning education; creating global citizens. |
practices (Kultti, Pramling, and Pramling Samuelsson 2017). It is not only the revised curriculum that points out the integrated aspects of sustainability since the 2030 Agenda for Sustainability (United Nations 2015) also points out that environmental, social, and economic dimensions are inseparable and indivisible. We argue that it is not enough just to include sustainability in preschool curriculum; rather, there is a need for education and training within higher education that equip future preschool teachers with the necessary competence.

**Children’s active participation**

The findings of our analysis show that the curriculum Lpfö2018 includes children’s participation and influence, collaboration between preschool and home, transfer to school (preschool class), and, finally, follow-up, evaluation, and development. The section entitled *Fundamental Values* states that:

> The preschool should reflect on the values and rights expressed in the UN Convention on the Rights of the Child (CRC). Education should therefore be based on what is deemed to be the child’s best interests, that children have the right to participation and influence, and that children should be made aware of their rights. (Skolverket 2018, 5)

Since the UN Convention on the Rights of the Child (UNICEF 1989) is now law in Sweden, it is necessary to identify and reflect on how the rights of the child are addressed in the curriculum and how they are practiced in the education practices of preschool. Children’s perspective relates to the UN Convention on the Rights of the Child (Article 12), which requires that children’s voices be heard, and their opinions respected. This aspect is important for the preschool of today, where children influence and participate in everyday life, and is strongly emphasized in Lpfö2018:

> Education in the preschool should lay the foundations for children to understand what democracy is. […] Children have the right to participation and influence. The needs and interests that the children themselves express in different ways should provide the foundation for shaping the environment and planning the education. (Skolverket 2018, 17)

This can mean both practicing democracy in real everyday situations at preschool and learning about democratic principles, as well as having the ability to cooperate and make decisions in accordance with these principles. This is in line with Shier’s (2001) model that emphasizes that children are to be listened to, that they are to be encouraged to express their views, that their views are to be respected, that they are to be involved in decision-making, and that they are to be able to influence matters that to them are of relevance.

Equality and democracy, two central notions in the Swedish curriculum, can be readily linked to social sustainability. Equality relates to human rights and the right of all children to quality education from preschool and up, as stated in SDG 4 (United Nations 2015). Democracy is pointed out in the very first paragraph of the curriculum Lpfö2018 describing how education must ‘convey and establish respect for human rights and the fundamental democratic values on which Swedish society is based’ (Skolverket 2018, 5). A study conducted in Sweden showed that teachers acknowledged the importance of children’s participation, listened to children, and valued their opinions in planning and decision-making activities (Borg and Gericke 2021). The Icelandic
preschool curriculum indicated that preschool teachers’ interpretations of sustainability were limited to environmental and economic issues with little attention given to the sociocultural aspects of sustainability and children’s participation (Norðdahl 2021).

**Children’s agency**

To become a citizen who can practice agency is about learning to participate, daring to practice one’s right to influence, and being involved. Children’s agency can be gauged by observing change in their active participation in preschool activities: for example, how they act independently, how they care for others, and how they say no to authority (the teacher) if they do not want to participate. In Lpfö2018, children are active agents in their learning in terms of both environmental and social sustainability issues: for example, the curriculum states that:

> Education should give every child opportunity to explore, ask questions and discuss phenomena and correlations in the world at large and thus challenge and stimulate their interests in health and well-being, and also in sustainable development (Skolverket 2018, 10)

In our analysis, we noticed that the curriculum to some extent included transformative learning (Blake, Sterling, and Goodson 2013; Davis 2015) by creating changes in the ways children think, act, and learn about sustainability. The curriculum Lpfö2018 states that the preschool should provide each child with the conditions in which they can develop (17):

- an interest in and an ability to express thoughts and opinions so that they can influence their situation,
- an ability to assume responsibility for their own actions and for the environment in the preschool, and
- an understanding of democratic principles and the ability to cooperate and make decisions in accordance with them.

Moreover, agency is about children’s active participation and decision-making – aspects that cannot be presumed to always develop naturally. Rather, they depend on mediation in which teachers play important roles. Therefore, it is not enough just to acknowledge children’s agency; instead, there is a need to explore how children’s agency can be enacted. In this regard, researchers have reported that very few studies have investigated teachers’ teaching practices that aim to support the development of children’s sense of agency in EfS (e.g. Caiman and Lundegård 2014; Davis 2009; Duhn 2012; Hedefalk, Almqvist, and Lidar 2014; Ärlemalm-Hagsér and Davis 2014).

In Sweden, children whose mother tongue is not Swedish have the right to develop their mother tongue and Swedish at preschool. As a result of this, a small change was made to Lpfö2018 that had relevance for about 20% of preschool children – those whose family origins are not Swedish. The curriculum Lpfö2018 states that children have the right to education in ‘both the Swedish language and the national minority language if the child belongs to a national minority’ (Finnish, Jiddisch, Meänkieli, Romani Chib, and Sami), as well as ‘Swedish sign language, if the child has impaired hearing, is deaf or needs sign language for other reasons’ (Skolverket 2018, 15).
Researchers the world over have raised concerns about language as a subject in preschool since many children have other linguistic backgrounds (Pramling Samuelsson, Kultti, and Pramling 2018). Language proficiency is important for children’s agency and knowledge development. Despite the fact very young children are not fully competent linguistically, teachers must still communicate verbally with them. It is through words that children access new concepts and ideas.

**Conclusion**

This analysis reveals a number of changes to the revised curriculum Lpfö2018 that are relevant to the 2030 Agenda for Sustainability and the UN Convention on the Rights of the Child. These are some of the major steps compared to previous curricula (Skolverket 1998, rev. 2010 and rev. 2016) in which sustainability was not explicitly addressed. Although sustainability is explicitly included in Lpfö2018, it does not necessarily ensure the implementation of EfS. There are preschool teachers who still find sustainability complex and who do not acknowledge children as active citizens able to make decisions and express their views (Ärlemalm-Hagsér 2013). Therefore, it is not enough to address sustainability in the curriculum. Teachers need in-service training as well as teaching materials to support the implementation of the curriculum. It is not enough that higher education includes sustainability in policy documents; rather, EfS is to be explicitly incorporated into teaching and learning goals, as well as activities in order to address a ‘gap between policies for sustainability and the practice of embedding EfS into teacher education programs at the Education faculty/departmental level’ (Davis and Davis 2021).

The curriculum has also used sustainability from a holistic perspective that includes environmental, social, and economic dimensions, while also pointing out that these dimensions are inseparable and indivisible. The notion of transformative learning, which emphasizes changes in the ways children think, act, and learn about sustainability, has been observed in the revised curriculum. Children’s active participation and influence are well-documented in the curriculum, where they are portrayed as active agents of change in relation to sustainability practices. The issue of global citizenship is also identified in the curriculum. Our analysis reveals the responsibilities of preschool staff to value children’s personal agency and to ensure their right to participate as competent individuals who are capable of creating a sustainable society.

In terms of education for the future and sustainability in early childhood education, it is important to view agency as a content area from goal 4.7 that needs to be communicated to children, while the children also need to experience agency in practice. Everyday life must be simultaneously sustainable and democratic, since sustainability is about children both becoming aware of their agency and creating knowledge about their right to participate and being aware of their rights (Björklund and Pramling Samuelsson 2020; Pramling Samuelsson et al. 2021). The point of departure of EfS and the UN Convention on the Rights of the Child is that the teacher knows in which direction to develop children’s understanding. The process towards that direction is always a negotiation between teacher and child in terms of focussing on the intersection between the teacher’s knowledge and the children’s experiences and ideas about what teaching content is in focus. It
is a question of supporting and challenging the world of each child – of making real each child’s agency (Pramling, Doverborg, and Pramling Samuelsson 2017).

One important aspect in the process of developing a sustainable world has been to incorporate the 2030 Agenda for Sustainability into school curricula, including the preschool curriculum. By doing so, sustainability issues become more apparent to teachers. However, this is, of course, not enough: sustainability issues must be integrated in practical terms as well, and this may require more than simply including them in the curriculum. Ken Robinson (2006) states in one of his TED talks that ‘[w]e educate children for a future we do not know anything about’. This may be true, but we know that sustainability is the most pressing issue for the next generation. We do not know exactly what issues the next generation will face, but by providing quality education to all, we may help children develop agency to think, reflect, and take a stand. Children need to perceive themselves as having agency so that they become active citizens locally and globally, and people must not only listen to them but must also share decisions with them in ongoing dialogue in preschool (Kultti, Pramling, and Pramling Samuelsson 2017).

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ORCID

Farhana Borg http://orcid.org/0000-0002-4937-8413
Ingrid Pramling Samuelsson http://orcid.org/0000-0003-0321-3733

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