

“The Child Just Needs to Get Outside”

Perceptions of Early Childhood Education educators on inclusion in outdoor school environments for children with diverse motor abilities

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Abstract

Outdoor environments are powerful spaces for early childhood development, but are they truly inclusive for all children? This thesis examines how Early Childhood Education (ECE) educators perceive inclusion in outdoor school environments for children with diverse motor abilities. While the benefits of outdoor play and learning are well-documented, physical and systemic barriers continue to limit participation for children with disabilities.

Using a qualitative approach, ten semi-structured interviews were conducted with ECE educators from six European countries (Germany, Austria, Switzerland, Sweden, Norway, and Greece). Thematic Analysis, informed by an abductive approach and guided by Universal Design for Learning (UDL), revealed a nuanced landscape: educators face challenges related to inaccessible infrastructure, limited staffing, and parental concerns, but also recognize the unique potential of nature-based environments to promote inclusion, resilience, and growth.

Educators emphasized that with thoughtful design and adaptive practices, outdoor environments can become spaces where every child, regardless of ability, can explore, play, and thrive. Their insights point to a strong need for inclusive pedagogy, supportive policies, and environments built with all learners in mind.

This study adds depth to the conversation on inclusive education by drawing on educators' lived experiences and highlights outdoor learning as a vital, yet often overlooked, area for inclusive reform.

Keywords: inclusion, outdoor school environments, Early Childhood Education, children with physical disabilities, UDL, inclusive design, Outdoor Education.

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Table of Contents

- 1. Introduction 7
 - 1.2 Aim and Research Question 9
- 2. Background 10
 - 2.1 Salamanca Statement 10
 - 2.2 Children's Rights 12
 - 2.3 Curricula 12
 - 2.4 Outdoor Education 15
- 3. Literature review 17
 - 3.1 Outdoor Education 17
 - 3.1.1 Outdoor Play 17
 - 3.1.2 Risky Play 18
 - 3.1.3 Messy Play 19
 - 3.2 Children with Diverse Motor Abilities: Understanding Disability in Early Childhood 20
 - 3.3 Inclusion in Education 21
 - 3.3.1 Inclusion in ECE for Children with Diverse Motor Abilities 22
 - 3.3.2 Inclusion in Outdoor Environments 23
 - 3.4 Universal Design for Learning 24
 - 3.4.1 Universal Design for Learning and Outdoor Education 24
- 4. Method 26
 - 4.1 Study Design 26
 - 4.2 Participants 28
 - 4.3 Transcription and Translation 29
 - 4.4 Data Collection 30
 - 4.5 Data Analysis 32
 - 4.6 Ethical Considerations 33
 - 4.7 Limitations and Method Discussion 35
- 5. Findings/ Results 37
 - 5.1 Theme 1: Closed Doors in Open Spaces: Barriers to Outdoor Inclusion 39
 - 5.1.1 Environmental and Physical Limitations 39

5.1.2	Structural and Systemic Constraints	40
5.1.3	Challenges in Mobility and Excursions.....	41
5.2	Theme 2: Nature Knows no Barriers: Outdoor and Inclusion	42
5.2.1	Outdoor School Environments	42
5.2.2	How to Use Outdoor School Environments	43
5.2.3	Benefits of Outdoor School Environments	44
5.2.4	Including Everyone in the Outdoors.....	44
5.3	Theme 3: Inclusion Through the Educators' Eyes.....	45
5.3.1	Students as Individuals.....	46
5.3.2	Backgrounds and Beliefs	47
5.3.3	Approaches to Inclusion	48
5.4	Theme 4: Vision of Tomorrow: Creating a Better Outdoor School Environment.....	49
6.	Discussion	52
6.1	Limiting Aspects in Outdoor School Environments	52
6.2	Enabling Aspects in Outdoor School Environments	55
6.3	Teachers' Beliefs and Views on Children.....	57
6.4	Adaptations of Outdoor School Environments	59
7.	Conclusion	61
7.1	Future Research	62
	References.....	63
	Appendix.....	70
	Appendix 1 – Information Letter	70
	Appendix 2 - Consent Form.....	71
	Appendix 3a – Interview Guide.....	72
	Appendix 3b - Interview Guide in German	73

List of Tables and Figures

Table 1 , <i>Table with participants information</i>	27
Figure 1 , <i>Flow chart of the themes, subthemes and codes that resulted from TA</i>	36

1. Introduction

Outdoor learning is becoming increasingly important and respected in Early Childhood Education. Experts recognize it as an important tool and method for cognitive, psychological, emotional, and social development. Although the benefits of Outdoor Education and play have long been well documented, children with disabilities are often excluded or less able to participate. Unfortunately, access to and resources for inclusive outdoor environments in Early Childhood Education are very limited (Fägerstam, 2012; Wagenfeld & Kennedy, 2024). Therefore, this work is dedicated to early childhood educators who work with children with diverse motor abilities and their experiences, to better understand the inclusivity of outdoor school environments in ECE settings and learning through outdoor play.

Although the importance of outdoor play has long been known, children with disabilities and those around them often experience exclusion and major barriers. This can range from discriminatory designs of playgrounds to social exclusion, limited opportunities, and much more. As a result, children with disabilities cannot take advantage of the same developmental opportunities as their peers and are therefore disadvantaged (Jeanes & Magee, 2012). These limiting circumstances do not only relate to preschools, outdoor areas, or Early Childhood Education; they are a reflection of wider social patterns of exclusion and marginalization (Yantzi et al., 2010). Therefore, analyzing outdoor learning school environments is important to make them more inclusive, since children spend a lot of time there. Still, it is a small part of the problem, and can be applied to countless areas.

From an educational point of view, children's learning is enhanced when they are in diverse and stimulating environments (Kvalnes & Sandseter, 2023). Not only does it help children to better understand their environment, it is also their right. The UN Convention on the Rights of the Child demands the right that every child may and should participate in play and education. There must be no discrimination regardless of the child's ability (UNICEF, 1989). Research shows that outdoor play, especially in natural settings, supports children's development. Grindheim et al. (2021) report that children who play outdoors in different environments and landscapes develop stronger motor skills, better health in general, and higher cognitive skills.

Despite all that, the majority of the research body has not adequately addressed how outdoor environments are experienced by all students. More specifically, little attention has been given to creating inclusive outdoor school environments for children with diverse motor abilities (Jeanes & Magee, 2012). In the limited literature of existing research about inclusive outdoor play areas, most of the research tends to focus on general disability without distinguishing

between types. Or their main focus is on community-based playgrounds rather than school-specific contexts (Stanton-Chapman, 2016; Stanton-Chapman & Schmidt, 2017). Moreover, studies that examine preschool-aged children with mobility challenges are still scarce. Where such topics have been explored, the focus is often on observational methods (e.g., James et al., 2022) or survey-based data collection, which may not fully capture the depth of educators' lived experiences and insights. Additionally, studies like Ytterhus and Åmot (2021) have addressed inclusivity in preschool environments, but did not explicitly center on children with diverse motor abilities or on the voices of teachers.

To address this underexplored area, this study focuses on how outdoor learning school environments exclude and/or include children with diverse motor abilities from the perspective of ECE educators. A further focus will be placed on what changes could be made to outdoor school environments to ensure inclusion. The study will provide insights into the experiences, challenges, and needs of children with diverse motor abilities in outdoor school environments, as those are described through the eyes of ECE educators. By first defining the Universal Design for Learning (UDL) framework, it will later be used to strengthen the educators' perspectives on inclusive outdoor learning environments. UDL offers a flexible and inclusive approach to designing learning environments that accommodate the diverse needs of all learners (CAST, 2018). Its principles align well with how children learn through play in outdoor environments, offering multiple means of engagement, representation, and expression that can be adapted to outdoor contexts (Kelly et al., 2022; Harte, 2013). In this inquiry, play is considered an important aspect of learning, especially in ECE settings, and a vital part of Outdoor Education.

We believe that this research contributes to the wider discourse on inclusive education systems, child development, and early childhood Outdoor Education. In particular, it aims to show how the perspective of educators on inclusive outdoor school environments is and possibly influences or could influence them. In doing so, this work aims to inspire future designs of outdoor playgrounds for ECE settings where every child, including those with diverse motor abilities, can participate, play freely, and thrive developmentally.

1.2 Aim and Research Question

This study aims to understand how outdoor environments in Early Childhood Education (ECE) can be made more inclusive for children with diverse motor abilities, based on the experiences of ECE educators. It focuses on the challenges children face as experienced by the educators, as well as the adjustments the educators have made to accommodate those challenges. In addition, the study examines teachers' suggestions for improving access and participation in outdoor play and learning.

Therefore, the study addresses the following research questions:

1. *What limits or enables children with diverse motor abilities in outdoor school environments according to ECE educators?*
2. *How should outdoor school environments be adapted to better support children with diverse motor abilities, according to ECE educators' experiences?*

2. Background

To introduce the topic of inclusive Early Childhood Education, it is important to begin with the international frameworks that have shaped its development. This chapter gives an overview of international milestones that have influenced the discourse on inclusive education, focusing on the Salamanca Statement and the UN Convention on the Rights of the Child. It continues with a comparative look at Early Childhood Education curricula from Germany, Austria, Switzerland, Sweden, Norway, and Greece, emphasizing their approaches to inclusion, play, outdoor learning, and excursions. The chapter concludes with an exploration of Outdoor Education as a pedagogical concept, outlining its key principles, practices, and relevance to Early Childhood Education.

2.1 Salamanca Statement

In June 1994, more than 300 representatives from 92 different countries, nations and governments, and 25 international organizations met in Salamanca, Spain. There, they addressed the need to reform inclusion in education for all learners, especially those with special educational needs. The meeting was organized by the Spanish government and UNESCO. The participants declared their solidarity with people with disabilities and reaffirmed their support. The term “Education for all” was a central focus, and the need for this was strongly emphasized. The importance of including children, young adults, and adults in the mainstream education system was emphasized (UNESCO, 1994).

Therefore, governments have been trying to make the education system more inclusive, at least since 1994. The importance of this should remain in focus until people with disabilities finally have the same access to education as people without disabilities. In this thesis, the Salamanca Statement is a great inspiration for revolutionizing education systems. For this reason, this paper refers to it in order to emphasize the importance of inclusion and to show that there is still room for improvement in the area of Early Childhood Education (UNESCO, 1994).

Key aspects of inclusion set out in the Salamanca Statement are that education is a fundamental right of every child and that they are entitled to a fair opportunity to participate in learning. Furthermore, children are described as human beings who are different in their abilities, interests, and needs, and educational institutions should respond to this diversity. Learners with

disabilities should be guaranteed participation in regular school life, which is based on child-centered teaching. Inclusive schools should ensure the most effective way to minimize discriminatory factors and improve social inclusion, and the overall quality and effectiveness of education systems (UNESCO, 1994).

The Statement emphasizes that schools should include all children, regardless of any physical, intellectual, social, emotional, linguistic, or other differences. This includes children with disabilities or exceptional abilities and other marginalized groups. These diverse conditions present significant challenges to schools. "Special educational needs" are defined in the third bullet point of the introduction of the Salamanca Statement and broadly include all children whose learning is affected by disability or difficulty, whether temporary or long-term. The inclusive model assumes that these learners should be part of the same educational system as their peers (UNESCO, 1994).

Inclusive schools are expected to develop pedagogical approaches that meet the needs of all students, including those with severe disadvantages. Their establishment plays a key role in breaking down social barriers and promoting inclusive values in broader society. The guiding principle of inclusion is that all children should learn together whenever possible, regardless of their differences (UNESCO, 1994).

A crucial element in the success of inclusive schools is early support. Identifying and addressing the needs of children with special educational needs in their early years, especially before the age of six, is vital. Early Childhood Education and care programs should be developed or adapted to promote physical, cognitive, and social growth, as well as school readiness. Such programs are both socially and economically valuable, helping prevent further developmental disadvantages. They should integrate preschool learning with early health care services and embrace inclusive principles from the outset (UNESCO, 1994).

Many countries have responded by expanding access to early education, for example, by establishing kindergartens and nurseries or by offering family awareness and information programs (UNESCO, 1994). Since this research is embedded in the experiences of preschool teachers from several countries, the inclusivity of those can be taken into account.

2.2 Children's Rights

One can say that the Salamanca Statement is closely related to the UN Convention of Children's Rights that was enforced on the 2nd of September 1990. The UN Convention came into existence as it recognized that an international agreement could possibly have a significant impact on the protection of children's rights. It acknowledges that these rights require ongoing protection and that there are children across the world living in extremely difficult conditions and are, therefore, in need of special attention (UNICEF, 1989).

The UN Convention consists of 54 Articles aimed at safeguarding children's rights on a global level. Specifically, Article 2 calls on member states to ensure the rights of children as defined by the Convention without discrimination, including on the grounds of disability, and to take appropriate measures in this regard. Article 23 refers to children with mental and physical disabilities, stating that member states must recognize that these children have the right to enjoy a decent life in dignity, and that they are entitled to access education and special care that will help them fully develop their abilities, grow, and become integrated members of society. Additionally, Article 27 urges member states to recognize the right of every child to a standard of living adequate for their physical and mental development. In parallel, Article 29 emphasizes that education should aim to develop children's abilities, including motor skills, and promote respect for the natural environment, as well as human rights and freedoms as outlined in the UN Charter. Lastly, Article 31 makes specific reference to the child's right to rest, play, and leisure time (UNICEF, 1989).

However, it is important to note that the Convention on the Rights of the Child does not have legal enforcement power. Its implementation relies on the willingness of individual governments to comply with its provisions. Nevertheless, it remains the most widely ratified human rights treaty in international law (Kilkelly, 2001).

2.3 Curricula

Since this research works with ECE educators from several countries, it also needs to be considered that the curriculum in each country is different. Therefore, the extent of inclusion and Outdoor Education will differ according to differences in the curriculum. Because of that, we decided to include the curricula in this background to give a deeper understanding of their key aspects.

In this study, teachers from Germany (Baden-Württemberg), Austria, Switzerland, Sweden, Norway, and Greece are interviewed, and therefore, those curricula will be discussed and compared. The Early Childhood Education curricula from those countries are similar in many ways but also have clear differences - especially in how they are structured and how they support inclusion, learning through play, Outdoor Education, and excursions.

To begin with, the structure of the curricula is different in each country. The plan in Germany (Baden-Württemberg) is a framework with clear goals but gives schools and kindergartens flexibility in how they reach those goals (Ministerium für Kultus, Jugend und Sport Baden-Württemberg, 2011). Austria's curriculum is also a national document, but it is open and flexible, so each region or institution can adjust it to their needs (Charlotte Bühler Institut, 2020). In Switzerland, there is no fixed curriculum. Instead, the country uses a guiding document that helps teachers reflect on quality and practice (Wustmann Seiler & Simoni, 2016). The Swedish preschool curriculum (Skolverket, 2018) is more formal. It is a national law-based curriculum that includes clear goals, values, and responsibilities for teachers and heads of preschools (Skolverket, 2018). The Norwegian Framework Plan for Kindergartens (2017) is not a curriculum in the traditional school sense, but a pedagogical framework for work in Norwegian kindergartens. It specifies what children should experience and learn, but not how; this is left to educational professionals and providers (Norwegian Directorate for Education and Training, 2017). Lastly, the curriculum in Greece is a binding document that preschools have to follow regardless of ownership, public or private. It is a Framework that helps ensure the quality of the educational program, while, at the same time, is flexible and open to teachers' integration in their teaching in ways that meet the needs of the school unit, the children, and everyone else involved in the learning process (IEP, 2022).

When it comes to inclusion, all six countries treat it as a key value. Germany's plan talks about recognizing each child's unique path and supporting all children, no matter their background (Ministerium für Kultus, Jugend und Sport Baden-Württemberg, 2011). In Austria, inclusion means more than just integrating children with differences; it's about seeing diversity as a strength and making sure every child can take part equally (Charlotte Bühler Institut, 2020). The Swiss orientation document also highlights inclusion and diversity as central ideas. Every child should feel they belong and have a place in society (Wustmann Seiler & Simoni, 2016). The Norwegian Framework sees inclusion as a fundamental principle of Early Childhood Education. The framework plan requires that educational practice is designed in

such a way that it is adapted to the individual needs and requirements of each child. This applies to children with special needs as well as those who require additional support at times (Norwegian Directorate for Education and Training, 2017). Sweden goes even further by making inclusion a legal right. Preschools must give equal chances to all children and adapt the learning to each child's needs (Skolverket, 2018). Inclusive education and differentiated teaching are key practices in Greek preschools, as underlined by the Curriculum. Preschool teachers need to take into account individual differences and special learning needs that may arise due to learning difficulties, disability, or other specific issues (IEII, 2022).

Learning through play is very important in all the countries under study. In Germany, play is seen as a natural way to discover the world and to learn (Ministerium für Kultus, Jugend und Sport Baden-Württemberg, 2011). Austria calls play the most joyful and meaningful form of learning for young children (Charlotte Bühler Institut, 2020). In Switzerland, learning is described as a holistic experience, using all the senses, and play is part of that (Wustmann Seiler & Simoni, 2016). The Swedish curriculum states that play is the foundation of all learning, development, and well-being (Skolverket, 2018). In the framework plan for Norwegian kindergartens, play is seen as a central prerequisite for learning, development, and well-being. It has value in its own right and is also seen as an important form of learning (Norwegian Directorate for Education and Training, 2017). Play and playful learning are very important aspects of the Greek preschool. Teachers should organize appropriate learning situations, taking into account the six basic characteristics of play: process over outcome, intrinsic motivation, symbolic properties, movement, rules, and child-led learning (IEII, 2022).

All six countries also support outdoor learning and the use of schoolyards. In Germany, this includes movement, nature experiences, and sometimes school garden projects (Ministerium für Kultus, Jugend und Sport Baden-Württemberg, 2011). In Austria, nature and environment are important areas of the curriculum, and children are encouraged to explore outside (Charlotte Bühler Institut, 2020). The Swiss framework encourages outdoor spaces that invite exploration and movement (Wustmann Seiler & Simoni, 2016). Sweden puts a strong focus on outdoor environments. Children play and learn outside every day, and nature is part of daily routines (Skolverket, 2018). Outdoor learning in Norway, whether in the outdoor area or in the forest, is considered a natural part of everyday kindergarten life. Outdoor Education is, therefore, firmly anchored in the curriculum and is seen as an elementary component of holistic education (Norwegian Directorate for Education and Training, 2017). In comparison to the other countries' curricula, the Greek one does not contain a specific segment for Outdoor Education.

Instead, it points out that the natural environment of the school, the schoolyard, enhances the learning process as it provides stimuli and opportunities for the development of activities with great educational value (IEII, 2022).

Lastly, all the curricula support excursions and real-life learning. In Germany, excursions are used in project-based learning (Ministerium für Kultus, Jugend und Sport Baden-Württemberg, 2011). Austria's framework encourages learning through real-world experiences outside of the classroom (Charlotte Bühler Institut, 2020). In Switzerland and Greece, children are also encouraged to explore their community and environment as part of learning (Wustmann Seiler & Simoni, 2016; IEII, 2022). Sweden uses field trips to help children learn about society, culture, and nature (Skolverket, 2018). Excursions are explicitly recognized as educationally valuable activities in the Norwegian curriculum. They enable the children to get to know their local surroundings, identify with their environment, and gain important experiences outside the kindergarten (Norwegian Directorate for Education and Training, 2017).

All these outdoor concepts in the curricula show similarities to the concept of Outdoor Education, and parallels can be identified.

2.4 Outdoor Education

Outdoor Education (OE) refers to structured educational practices that take place outside of traditional classroom settings. Although its origins can be traced back to movements such as Scouting and Outward Bound, modern OE is closely associated with experiential, place-based, and embodied learning (Brookes, 2015; Dyment & Potter, 2015). Outdoor Education encompasses various approaches such as environmental and sustainability education, inquiry and project-based learning, place-based education, and adventure education. The term itself, however, is interpreted in different ways depending on the intention of the user (Quay & Seaman, 2013) and is often referred to by alternative terms such as out-of-school learning, out-of-classroom learning, and outdoor learning (Fägerstam, 2012), as well as udeskole, friluftsliv, outdoor adventure education, and forest school (Becker et al., 2017). A prominent example is the Danish concept of udeskole, a structured and regular form of curriculum-based education that takes place in outdoor or community settings (Bærenholdt, 2022).

One of the central concepts in OE is place-based education, which emphasizes the value of connecting learners to their environment in meaningful ways. Rather than treating space as

neutral, this approach transforms it into 'place' by embedding historical, cultural, and emotional significance in the learning context (Fägerstam, 2012; Gruenewald, 2003). Mannion and Lynch (2016) outline three levels of engagement with place in outdoor learning: place-ambivalent, place-sensitive, and place-essential, each representing an increasing integration of setting and pedagogy.

In addition, outdoor learning promotes well-being and environmental awareness. It encourages physical activity, reduces stress, and promotes social development (Passy et al., 2019; Roberts et al., 2020). Free and risky play also builds resilience and confidence (Brussoni et al., 2015). In summary, Outdoor Education offers a holistic approach to education that connects students to place, people, and personal development.

The term Outdoor Education is defined differently, and the environments included in these definitions are not always the same. In our thesis, we have chosen to use the term 'outdoor school environments' to describe all areas located outside the Early Childhood Education building. This includes not only the institution's outdoor area, but also the nearby forest, museums, libraries, parks, playgrounds, and much more. While we have focused particularly on the outdoor areas of ECE buildings, we have not overlooked other locations. When writing about activities not located on the grounds of the ECE institution, we mainly use the term 'excursions' to clarify the destination.

3. Literature review

This chapter summarizes key research and theoretical perspectives on the intersection of inclusive education and outdoor learning in early childhood settings. It begins by examining the concept of Outdoor Education and its benefits, paying particular attention to outdoor play, risky play, and messy play. It highlights how these practices contribute to children's holistic development. It then turns to the experiences of children with diverse motor abilities, exploring how disability is understood and how inclusive approaches can facilitate meaningful participation. The chapter also explores the evolving understanding of inclusion within educational systems, as well as the specific considerations required in early childhood environments. Finally, Universal Design for Learning is introduced as a guiding model for creating accessible and engaging outdoor learning experiences that accommodate a wide range of abilities and needs.

3.1 Outdoor Education

As already shown in the background, Outdoor Education can be a profitable aspect for education and the education system. In the following, aspects of Outdoor Education that are important for understanding our results are explained, and the benefits of Outdoor Education, more specifically outdoor play, are highlighted.

3.1.1 Outdoor Play

Outdoor play is essential for children's development. It builds physical strength, social skills, and emotional well-being. Outdoor spaces give children the freedom to move and explore. Nature-based play improves focus and lowers stress. Several studies even underline that outdoor play supports the whole child (Kandemir & Sevimli-Celik, 2023; Wagenfeld & Kennedy, 2024).

Despite its benefits, outdoor play is often limited. Concerns about dirt and safety restrict access. Parents often worry about weather, clothing, and hygiene (Kandemir & Sevimli-Celik, 2023). These views affect how teachers plan outdoor activities. Fear of mess often leads to structured and controlled play.

Wagenfeld and Kennedy (2024) emphasize the need for inclusive design. Outdoor spaces should be open and accessible to all children. Children with disabilities often face barriers to

outdoor play. Thoughtful design can remove these barriers and encourage full participation. Teachers and parents must work together. Many teachers adjust their plans based on parental feedback. As a result, children may miss out on key learning experiences. Outdoor play supports independence, teamwork, and sensory growth (Kvalnes & Sandseter, 2023).

Playing in nature helps children build confidence and curiosity (Wagenfeld & Kennedy, 2024). Nature-based play fosters resilience, creativity, and joy. Outdoor play supports health, learning, and inclusion. Teachers and parents must create environments that welcome exploration (Kvalnes & Sandseter, 2023). As Kandemir and Sevimli-Celik (2023) and Wagenfeld and Kennedy (2024) both argue, outdoor play is not extra—it is essential.

3.1.2 Risky Play

Risky play involves activities such as climbing, jumping, and exploring unsafe places. Although it involves a level of danger, it also helps children to grow. Sandseter (2007) describes it as thrilling and exciting. Kvalnes and Sandseter (2023) explain that it fosters learning, courage, and decision-making skills. Because of the number of physical activities the children practice, their physical and motor skills improve. These activities even help to develop muscle strength, endurance, and bone quality.

Children learn by doing. They test their limits and develop their physical skills. Risky play helps them to understand their own bodies and abilities (Kvalnes & Sandseter, 2023). Educators' views often depend on their own childhood experiences (Tsujitani, 2024). Those who experienced risky play as children are more likely to support it today. O'Neill (2016) introduced the concept of safety risk intelligence. This means children learn to judge what is safe. They develop this skill through real experience rather than warnings. Despite popular assumptions, risky play was not linked to more fractures or serious injuries, even when it involved heights (Kvalnes & Sandseter, 2023). Supportive adults play a key role. They must allow risk without removing all challenges (Tsujitani, 2024).

According to Speldewinde (2024), nature-based programmes encourage risky play. In the Bush Kinders programme, children engage in nature-based, play-driven learning for several hours each week, fostering development through seasonal exploration and minimal use of artificial materials. In this early childhood programme, children climb trees and explore wild areas. These settings also facilitate science learning. Risky play and learning go hand in hand.

Risky play is not careless. It involves making choices and being aware of potential risks. Kvalnes and Sandseter (2023) emphasize the ethical importance of risk. Children gain strength and resilience by facing their fears. Overprotecting them may hinder their development. Additionally, a fear of injury can often lead to limitations. Many schools ban climbing and rough play. While these rules may prevent harm, they also reduce learning opportunities. Adults need to view risk as a tool, not a threat.

In closing, risky play supports vital skills like judgment and bravery. Sandseter (2007) and Tsujitani (2024) show that it is part of a healthy childhood. Adults must allow risk while offering safety and guidance.

3.1.3 Messy Play

Messy play, another type of outdoor play, enables children to explore using all their senses. It often involves playing with mud, water, or paint. Menezes (2022) describes how playing in the mud helped her son to learn through storytelling. Despite the many benefits of messy play, many parents and teachers limit it due to hygiene concerns (Kandemir & Sevimli-Çelik, 2023).

Grosvenor and Myers (2019) demonstrate that dirt has long been viewed as both harmful and beneficial. In cities, it often signifies danger. In rural areas, however, it can signify growth. These ideas influence how people perceive messy play today. To explore this, Menezes (2022) created a mud kitchen. She used storytelling to make mud play fun and meaningful. As a result, her son became more curious and independent. With that action, she demonstrated how adult support can transform the experience of messy play.

According to Wagenfeld and Kennedy (2024), messy play can benefit children with sensory needs. Mud, sand, and water provide sensory feedback. All children benefit when messy play is encouraged and supported. Nevertheless, many teachers avoid messy play. Parents and legal guardians worry about clothes and health. As result, teachers feel pressured to keep things clean. This limits creativity and exploration. According to Kandemir and Sevimli-Çelik (2023), participation in messy play decreases during the colder months.

Adults can help by changing how they view dirt. Children thrive on trust and freedom; when mess is accepted, they feel confident enough to try new things (Menezes, 2022). Therefore, messy play builds curiosity and confidence. Grosvenor and Myers (2019) and Menezes (2022) argue that, with support, messy play can be both joyful and educational.

3.2 Children with Diverse Motor Abilities: Understanding Disability in Early Childhood

Hallberg and Klingberg (2023) state that the concept of disability is complex and multi-dimensional, especially when viewed through the lens of childhood. A wide spectrum of conditions fall under the umbrella of disability, and even when children are diagnosed with the same condition, their experiences and levels of functioning can vary drastically. The authors emphasize that “disability primarily concerns abnormalities in the development and/or functioning levels in relation to the normal and expected development of physical, mental, and intellectual functions” (p. 6-7). However, it is crucial to differentiate between “disability” and “impairment.” While disability refers to a person’s reduced level of functioning, impairment occurs when environmental conditions do not accommodate these needs adequately (Hallberg & Klingberg, 2023).

This perspective encourages a shift in terminology. Rather than using terms like “special needs” or “disabled,” this thesis adopts the phrase “children with diverse motor abilities,” which promotes a more inclusive and functional view of the child. This approach aligns with the social model of disability, which focuses on removing societal and environmental barriers instead of emphasizing individual limitations (Connors & Stalker, 2007).

Children with physical disabilities experience varying degrees of independence and dependence. Some may live lives only marginally affected by their disability, while others require extensive assistance for basic activities like breathing or mobility. Lumsdaine and Thurston (2017) note that although there is significant research on disability in general, studies specifically focusing on children with physical disabilities remain limited.

A critical aspect of understanding disability in early childhood is considering how these children view themselves. Many young children do not initially recognize themselves as different. Connors and Stalker (2007) found that “most young people presented themselves as similar to non-disabled children” (p. 24), and many focused on their similarities rather than differences. The onset of awareness about being “different” often coincides with adolescence, when social dynamics become more complex. This developmental period can mark a shift in self-perception, often influenced by how others treat them and the barriers they encounter in social and physical environments (Lumsdaine & Thurston, 2017).

Environmental factors play a significant role in shaping the experience of disability. A child with a heart condition may not feel impaired if accommodations, such as elevators, are in place. However, if those supports are missing, the child may experience their condition as a disabling impairment (Hallberg & Klingberg, 2023). This distinction underscores the importance of accessible environments in promoting independence.

Family dynamics also influence how children interpret their conditions. Connors and Stalker (2007) report that children's understanding of their impairments often comes from their parents, who frame them as being “special,” part of a divine plan, or the result of a medical incident. Interestingly, while parents believed their children were aware of being different, many children did not express such awareness and instead focused on what they could do, reporting happiness and a sense of achievement (Connors & Stalker, 2007).

Social attitudes and misconceptions further impact children’s experiences. Lumsdaine and Thurston (2017) highlight that children who use wheelchairs are often perceived as objects of pity or as being less capable than they truly are. These assumptions can lead to social exclusion, not only from physical spaces but also from meaningful peer relationships. Children noted that being left out of social events or being unable to access public spaces affected their sense of belonging more than their physical limitations did.

Ultimately, while having a disability can present challenges, it does not preclude a happy, fulfilling childhood. With the right support and inclusive attitudes, children with diverse motor abilities can thrive and feel just as whole and capable as their peers (Hallberg & Klingberg, 2023).

3.3 Inclusion in Education

Inclusion transcends the physical placement of students with disabilities in mainstream settings and calls for structural, pedagogical, and cultural transformation in education systems. As outlined in the Salamanca Statement (UNESCO, 1994), inclusion is a fundamental right that supports the full participation of all learners, regardless of ability, background, or identity.

Over time, the understanding of inclusion has changed again and again, with learners usually being perceived as the problem. Throughout the years, this view has changed somewhat; it not

only perceives the learners as the challenge but also sees the system, social expectations, and resources as the cause of exclusion (Berhanu, 2011).

Inclusion must also be understood as a contested and dynamic process, not a static outcome. Lindqvist and Nilholm (2011) show that school leaders often attribute learning difficulties to individual deficits, which limits systemic approaches to inclusive reform. Without a shared institutional commitment to diversity and flexibility, even well-intentioned policies may fail to result in meaningful inclusion.

Ultimately, inclusive education must address structural inequalities, rethink traditional pedagogies, and engage with communities to create systems that support all learners. This involves not only shifting practices but also transforming the underlying values and power dynamics that shape educational systems (Berhanu, 2011; Lindqvist & Nilholm, 2011; UNESCO, 1994).

3.3.1 Inclusion in ECE for Children with Diverse Motor Abilities

The practices that will hopefully change over time relate not only to inclusion in general but also to inclusion in Early Childhood Education. As our work focuses on children with diverse motor abilities, this is now put into context.

Children with physical disabilities often face environmental and social barriers that inhibit full participation. Play environments that are not only physically accessible but socially inclusive, enabling children with diverse needs to engage in meaningful interactions with peers, are highly recommended. These inclusive environments must consider the socio-material aspects of learning, meaning how physical spaces, materials, and human relationships co-construct experiences (Conn & Murphy, 2022; Jeanes & Magee, 2012).

Vygotskian theories further highlight the importance of social interaction in learning. Children with disabilities, including motor impairments, benefit from scaffolded learning experiences that are responsive to their needs and developmental trajectories (Böttcher & Dammeyer, 2016). Such perspectives shift the focus from a child's limitations to the opportunities that supportive environments can offer.

National policies often provide a framework for inclusion, but the practical implementation is highly variable. Åström (2023) demonstrates this through her cross-national study of ECE settings in Sweden, Portugal, and the United States. The findings of the study suggest that

educators' interpretations of inclusion play a critical role in shaping children's everyday experiences.

Finally, inclusion must be seen as a continuous journey. It requires ongoing reflection, flexibility, and systemic investment, not one-time interventions. Argued by Conn and Murphy (2022), inclusive pedagogy is about responsiveness to difference and the co-construction of learning with children, rather than rigid adherence to standard norms.

3.3.2 Inclusion in Outdoor Environments

Outdoor environments offer unique opportunities and challenges for inclusive education, particularly for children with motor impairments. Nature-based settings, playgrounds, and outdoor classrooms can foster creativity, autonomy, and social interactions. Yet without intentional design, these spaces can also become sites of exclusion (Åström, 2023; Berhanu, 2011; Jeanes & Magee, 2012)

Jeanes and Magee (2012) emphasize that inclusive outdoor play involves more than accessibility. Standardized playgrounds often fail to consider the needs of children with physical impairments, limiting their ability to engage with equipment or navigate uneven terrain.

Social inclusion in outdoor environments also depends on educator facilitation. Even in settings that value free play, educators may overlook children with low participation (Åström, 2023). This suggests that adult mediation is critical to ensuring inclusive peer interactions. Educators must be trained to recognize and respond to exclusion, encourage cooperative play, and adapt activities to include everyone.

Moreover, outdoor learning is increasingly recognized as a valuable pedagogical tool in early education. Learning environments that engage children with their surroundings in dynamic ways are deeply advocated. For children with motor limitations, these interactions may require adaptations, but they also open new avenues for sensory, cognitive, and emotional development (Conn & Murphy, 2022).

Including children in the design and evaluation of outdoor environments can empower them and improve inclusivity. Their insights can inform more responsive and equitable approaches. Inclusive practices should not be imposed top-down but co-developed with those affected by them (Nilholm, 2021).

3.4 Universal Design for Learning

Universal Design for Learning (UDL) is an educational framework that aims to improve and optimize teaching, learning, and learning environments for all students. With its interdisciplinary background from scientific disciplines such as neuroscience, developmental and cognitive psychology, UDL is, at its core, a pedagogical tool. It is a set of principles that aim to provide all individuals, regardless of disabilities, with more than equal opportunities to learn (CAST, 2018). The idea behind UDL is to address the whole population and promote inclusion and equity (Edyburn, 2010). The needs of students with special needs are treated as natural and self-evident, like those of everyone else (CAST, 2018), and are taken into account when addressing the learning barriers they face.

The origins of this model can be found in the principles of Universal Design, in the field of architecture in the 1970s, where the initial goal was accessibility for all individuals in physical environments (Center for Universal Design, 1997). Following the reauthorization of the Individuals with Disabilities Education Act (IDEA) in 1997, Universal Design for Learning was created by David Rose, Anne Meyer, and colleagues at the CAST Centre for Applied Special Technology (King-Sears, 2009). Its creation shed light on the ever-increasing need to consider the diversity of learners when designing learning environments (Al-Azawei et al., 2016). Questions about how students with disabilities would access not only the physical classroom, but also the general education curriculum needed to be addressed (Edyburn, 2010).

Considering the “what”, “why”, and “how” of learning, UDL is based on three fundamental principles. To provide students with a welcoming and flexible environment that meets the specific needs of every learner, *Multiple Means of Engagement* must be used to stimulate interest and motivation for learning. Equally important is the existence of *Multiple Means of Representation* by providing the learners with various ways of acquiring information and knowledge. Lastly, *Multiple Means of Action and Expression* must be considered when implementing UDL by offering students alternatives to demonstrate what they know (CAST, 2018).

3.4.1 Universal Design for Learning and Outdoor Education

Universal Design for Learning is a versatile educational framework that goes beyond a single teaching method, making it adaptable to a wide range of learning environments. Therefore, its implementation in outdoor learning is highly applicable (Harte, 2013). According to Heugen (2019), bringing together UDL principles with research on nature-based education can help us

move closer to a world where all children can thrive outdoors, regardless of their disabilities. Designing outdoor experiences based on UDL principles can benefit the quality of outdoor environments by making them more interesting and providing quality experiences that are developmentally appropriate and beneficial to children's development and learning, regardless of the difficulties and limitations they may face (Harte, 2013). These limitations can be in many different areas, including physical, cognitive, cultural, social, and/or emotional (Kelly et al., 2022).

Planning with UDL means designing outdoor learning that provides multiple and flexible options for children to engage with nature, represent their learning, and express themselves in ways that suit their unique preferences and strengths. Accommodations like raised garden beds for better accessibility, tactile alternatives, or access to a variety of tools exemplify how UDL can facilitate meaningful participation for all children. Overall, UDL emphasizes thoughtful, inclusive design that values the diverse ways children interact with and make sense of the world (Harte, 2013).

4. Method

Following the above description of the concepts relevant to this study, this chapter will outline the methods chosen and used for this thesis. A description of participants and the transcription process will be presented. In addition, the process of data collection and analysis will be described in detail. Finally, part of the chapter will be devoted to the ethical considerations and limitations of the methods used.

4.1 Study Design

This study uses a qualitative research design to explore how outdoor school environments can be made more inclusive for children with diverse motor abilities, based on the experiences of ECE educators. A qualitative approach is particularly appropriate for this research aim as it focuses on understanding meaning and experiences. Qualitative research is appropriate when exploring how individuals derive meaning from their experiences and the social contexts in which they unfold. Furthermore, the qualitative paradigm recognizes the existence of multiple realities and truths and emphasizes subjectivity in knowledge production (Braun & Clarke, 2013). This is in line with the purpose of this study, which is not to highlight a single truth or reality of inclusivity in outdoor school environments for young children with different motor abilities. Rather, it is to explore and understand the different perspectives of ECE educators.

Semi-structured interviews were chosen as the method of data collection because they provide both structure and flexibility. This type of interview allows participants to fully express their thoughts and experiences. Furthermore, as Braun and Clarke (2013) point out, semi-structured interviews allow the researcher to guide the participant through the topic of interest, leaving room for new and unexpected topics that are important to the interviewee to emerge. Therefore, there is an opportunity for unexpected insights to emerge. The open-ended nature creates an environment that encourages thorough responses and the use of one's own wording, giving the researcher a better understanding of the participants' perceptions (Braun & Clarke, 2013).

Thematic Analysis (TA) was used to analyze the data departing from the interviews. As Braun and Clarke explain, "Thematic analysis is a method for systematically identifying, organizing, and offering insight into patterns of meaning (themes) across a dataset" (2019, p.59). With its flexibility, TA supported the aim of the study to understand how outdoor environments in Early Childhood Education can be made more inclusive for children with diverse motor abilities, based on the experiences of ECE educators. This method of analysis also puts an emphasis on

the researcher's active role in the analytic process. The researcher is the one who will form the themes after thoroughly reviewing and deeply engaging with the data (Braun & Clarke, 2021). Due to the openness and versatility of Thematic Analysis, an abductive approach was also implemented.

This form of logical reasoning in research attempts to start observation in the empirical data without any presuppositions and theories. However, that does not mean that the researchers are ignorant or have no knowledge of the literature that surrounds the chosen topic of inquiry. On the contrary, they are deeply knowledgeable about the topic of discussion but choose to put all relevant theories on the side for a while. That is necessary, as abduction starts when the researcher finds him or herself surprised by facts in the data and/or findings. After that, a search for a meaningful rule or a fitting explanation of that surprise takes place (Reichertz, 2014). Therefore, theories do not dictate the beginning of the research in this approach, but are chosen later during the process of making meaning in order to help the researcher understand. Following that approach, we, the researchers of this study, will use Universal Design for Learning as a lens through which we will try to analyze and make meaning of the data,

4.2 Participants

Table 1

Participants' information

Country	Names	Age Group of Students in Years	Approx. Years of Experience	Number of Students in the Classroom	Number of Teachers in the Classroom
Sweden	Lovisa	1 - 6	7	16	2
	Ebba	1 - 2	18	10	2
Greece	Thea	3 - 6	24	25	1
	Iris	4 - 6	20	No own class	2
Austria	Martha	3 - 6	30	12	2
	Elisabeth	3 - 6	6	No own class	2
Switzerland	Mathilda	4 - 8	5	22	2
	Sophia	4 - 8	8	21	2
Norway	Enzo	1 - 3	7	9	3
Germany	Johanna	2 - 6	17	6	2

The data were collected through 10 semi-structured interviews with early childhood educators from 6 different countries (Sweden, Norway, Germany, Austria, Switzerland, Greece) who work or have recently worked in Early Childhood Education. The pool of participants varied in terms of years of experience and training, with the majority having a first degree in some form of ECE education and a small number specializing in special education. Most of them worked in the public sector, with only one participant working in a private school, and few of them were educators in declared inclusive ECE settings. All of them had worked with a wide range of children with diverse motor abilities. Some of them had children with mild motor difficulties, different disorders like autism and ADHD, or low muscle tone. Other educators had students with severe life-threatening syndromes, epilepsy, and cerebral palsy. This diversity contributed to a wide range of perceptions. Due to limited resources, two educators from each country were interviewed, with the exception of Germany and Norway, where only one participant was found.

The selection process was guided by the aims of the research. The target population was ECE educators who had worked in school settings with children with different motor abilities. In addition, the presence of an outdoor school environment, such as a school playground, was another important selection criterion.

For this purposive sample to be created, the friendship pyramiding method had been used (Braun & Clake, 2013). Potential participants were approached through referrals from other participants or the social network of the researchers and their university teachers. Recruitment communication was via email or SMS, where respondents received a brief explanation of the study along with the information letter (Appendix 1) and a consent form (Appendix 2).

4.3 Transcription and Translation

In our study, interviews were conducted in German, Greek, and English. To enable both researchers to engage with all the material, the German and Greek interviews were translated into English after transcription. This process was crucial in preparing the data for analysis, particularly given the multilingual nature of our research.

We used the transcription feature integrated into Microsoft Teams, which enabled real-time recording and automatic transcription. This significantly reduced the time required to process interviews. As Eftekhari (2024) notes, MS Teams offers very fast access to the transcript after conducting the interview, making it a highly efficient tool for qualitative research. However, while automated transcription tools increase efficiency, they are not without flaws. Such systems make algorithm-driven decisions regarding grammar, speaker identification, and noise filtering. As these systems are shaped by human input, they are prone to errors and bias. We, therefore, checked each transcript against the original audio recordings to ensure accuracy and preserve the intended meanings of the participants (Eftekhari, 2024).

Translation introduced additional challenges. Filep (2009) highlights the difficulty of finding exact equivalents in other languages and cautions against losing meaning through overly literal translation. Instead, we aimed to produce clear, context-sensitive translations that maintained the intent of the original statements. Often, a 'free' translation was more appropriate, enabling non-German speakers to understand the participants' quotes. Language is not a neutral medium; it actively shapes understanding. As Inhetveen (2012) observes, language plays a key role in the creation of social meaning, and misunderstandings in multilingual research can result in a complete lack of understanding. This made careful translation and review essential to preserving the integrity of our data. In line with Dresing and Pehl (2017), we documented our transcription and translation procedures to ensure transparency.

Every decision, from the choice of tools to the translation strategy, was guided by methodological rigor and the aim of preserving meaning while ensuring data security and accessibility.

4.4 Data Collection

In order to obtain the appropriate data that better fits and answers our aim and research questions, semi-structured interviews were utilized. As the main interest of this inquiry is to investigate the perceptions of ECE educators, this way of collecting qualitative data was thought to be the most suitable one.

Due to the flexible nature of this prevalent method of data gathering (Braun & Clarke, 2013), interviewees, on this occasion, ECE educators, were encouraged to share their individual perspectives and contemplations around inclusivity in outdoor school environments. Always in relation to children with diverse motor abilities. This format allows the researcher to explore pre-defined topics of interest, while being able to adapt to the flow of the conversation. The adaptability that characterizes semi-structured interviews encourages new topics of discussion and a deeper dialogue. The use of semi-structured interviews allowed us to comprehensively document the insights and perspectives of the participants (Braun & Clark, 2013).

As a consequence of the multicultural nature of our research design, synchronous online interviews were conducted with the use of Microsoft Teams or Zoom. The time frame of the thesis and our limited resources did not allow us to carry out in-person, face-to-face interviews in six different countries. However, despite the limitations that online interviews may entail, several benefits make them still an appropriate way of conducting interviews. By doing interviews online, challenges regarding time and location can be addressed (Cohen et al., 2018). Geographical limitations also cease to exist, making it, therefore, possible to interview people from different countries. Online interviews also help to establish rapport and build trust between the participant and the interviewer. The respondents can choose a place that feels more comfortable for them, where they will be relaxed and open. By doing so, there is a higher chance they will be willing to answer the questions and provide the researcher with rich, detailed data (Braun & Clarke, 2013).

The interviews took place at times that were more convenient for the participants and were spread over the second half of April, with only a few taking place in early May. To establish equal distribution of the workload among the researchers, a decision was made for each of us to conduct five interviews. The average length of an interview was around 45 minutes, which provided sufficient time and data to explore their perceptions. The total number of hours of recording was approximately 8 hours once all 10 interviews had been completed.

First, an interview guide (Appendix 3a) was prepared, containing 14 open-ended questions with follow-up questions to help interviewees open up and provide a more informed response. In the first draft, questions were brainstormed based on their relevance to the study. Following the guidelines of Braun and Clarke (2013), the first question was an introductory one, followed by a series of questions aimed at gaining a basic understanding of the participants' perspectives. Therefore, participants were asked to define key concepts relevant to the study (Outdoor Education, inclusivity).

A final “clean-up” question was also added to give participants the opportunity to add anything important that had not been added up to that point (Braun & Clarke, 2013). The majority of interviewees used this question to provide us with their own version of a summary of the entire

interview. After reviewing and revising the interview guide with the help of our supervisor, necessary corrections were made to both the wording and the order. Special attention was given to the correct choice of words, as poorly worded questions can damage rapport and, therefore, the data and findings (Braun & Clarke, 2013). Finally, a pilot interview was conducted to ensure the suitability of the designed interview guide in relation to the aim and research questions of the study.

Due to the different levels of comfort with English that the participants had, a second interview guide in German (Appendix 3b) was created that perfectly corresponded to the original English guide. That second list of questions was used for the German, Austrian, and Swiss participants, as in those countries, most of the population cannot express themselves fully in English. Following that way of thinking, the two Greek educators were given the option to respond to the questions either in English or in their native language. The last option was the one that both participants chose.

While an attempt to gather data through a different type of media, photographs, was conducted, the amount of data collected that way was not sufficient enough. As mentioned in the consent form, participants were encouraged to share pictures from the outdoor school environment in order for us, as researchers, to obtain a clearer understanding. However, less than 50% of our total sample managed to provide us with that data. As result, no data collected in that way were analyzed or taken into account.

4.5 Data Analysis

Thematic analysis (TA) was used to analyze the data collected, as mentioned above. This is a beginner-friendly method that is suitable for our research objective due to its flexibility, as it provides the perfect framework for identifying patterns and themes in our qualitative data. Furthermore, this method of data analysis is not as time consuming as others (Braun & Clarke, 2013), which makes it a perfect fit for us due to the limited amount of time we have been given.

After conducting, transcribing, and translating all interviews to English, following the procedure mentioned before in this chapter, the first step of analysis began as described in Braun and Clark (2013), which is known as *familiarisation with the data*. Each of the researchers read and reread the transcriptions to familiarise themselves with the content of each interview. Immersing oneself in the data is a necessary process in TA, in which the researcher

actively, analytically, and critically examines the data and begins to make sense of it (Braun & Clark, 2013).

Once this step was completed, all 10 interviews were coded using the NVivo software. The coding process used on this occasion was complete coding with the aim of identifying anything that could be relevant to the aim and research questions of the study. Due to the design of this study, this initial coding was done individually by the two researchers, who later met and redefined the codes and items of interest together. This ensured trustworthiness and an accurate representation of the participants' perceptions. Each interview was carefully reviewed to ensure that all essential elements were coded correctly.

As a next step, once the codes were finalized (64 codes in total), the two researchers together began to look for larger patterns in the data and codes, creating preliminary themes and sub-themes where necessary. Themes highlight key aspects of the data that relate to the research question and reflect recurring patterns of meaning. They are typically broader than a code, encompassing multiple dimensions and perspectives (Braun & Clarke, 2013). Thematic analysis, like any type of qualitative analysis and research, is not a linear process and involves many steps backwards and forwards. Therefore, the next step in any thematic analysis is to review and revise the themes.

Once all the themes were finalized, the last stage of the thematic analysis involved clearly defining and naming each theme. This step ensured that the themes accurately captured the core ideas emerging from the data and were distinct from each other. The analysis then moved to the reporting stage, which is presented in the following chapter. At this stage, relevant and illustrative excerpts from the interviews were selected to support each theme, with careful attention paid to ensuring that the descriptions provided a meaningful and faithful interpretation of the participants' perspectives (Braun & Clarke, 2013). While all participants contributed valuable insights, not all were directly quoted; priority was given to excerpts that most clearly represented the educators' perspectives. Nevertheless, the responses of all 10 interviewees were considered and reflected equally in the overall analysis.

4.6 Ethical Considerations

As every stage and aspect of research can raise ethical issues (Cohen et al., 2018), it is necessary to comply with ethical regulations and guidelines. The aforementioned research is in line with the rules of good research practice as outlined by the Swedish Research Council (2024), which of course, is based upon the European Code of Conduct (ALLEA, 2023).

Educational researchers, such as us, have a great responsibility to act in a way that respects and preserves the dignity of participants (Cohen et al., 2018). By obtaining informed consent, we can ensure respect and avoid deception by not withholding or concealing information about the study. All participants received an information letter prior to the interview, which provided sufficient insight into the aim of the study, together with a consent form to be signed by both parties. Sufficient time was allowed to review the material provided and to ask any clarifying questions, thus ensuring that everyone understood the content and implications of the study (Cohen et al., 2018). The consent form informed the participants of their voluntary participation in the study and their right to withdraw at any stage of the research, thus establishing self-determination. Clarifications regarding data handling were also included in the form to ensure confidentiality (Braun & Clarke, 2013). Only the research team had access to the data, which was securely stored on the university's drive. With the completion of this master's thesis, all data and personal information will be deleted and will not be used anywhere else once this study is finalized.

To better ensure privacy and confidentiality, as well as protection from harm, anonymity was promised, and pseudonyms were used on both the raw data and any written reports (Cohen et al., 2018). Therefore, participants' identities and names were protected and could not be linked to the research materials or identified in the report of results. In order to maintain the integrity and credibility of the study, efforts were made to ensure an honest, truthful, and accurate representation of the data collected (Braun & Clarke, 2013), recognizing that this may influence and shape the narrative of the overall study. While acknowledging the subjectivity inherent in qualitative studies, several measures were taken to minimize misrepresentation and misinterpretation of the data.

The initial separate coding, as mentioned in Data Analysis, and constant critical awareness of our own role as researchers and potential biases (Cohen et al., 2018), hopefully moved us closer to a faithful representation of the data collected. As Corbin and Strauss (2008) explain, self-awareness is a very important part of the research process and findings. Therefore, it is necessary for the researcher, who is in a way the translator of the participants' words, to stay alert of hir/ her own biases and assumptions.

4.7 Limitations and Method Discussion

As a final step in this chapter, it is important to acknowledge the limitations and methodological aspects of this research. The research design used in this study has several strengths and weaknesses. The qualitative approach chosen is consistent with the aim of exploring ECE educators' perceptions of the inclusion of outdoor school environments for children with different motor abilities. That is why Ground Theory, another qualitative method of analysis, would not have been an ideal choice. Beyond its complexity, it is a method mainly concerned with forming new theories from the collected data, which does not align with our aim of study. The choice to collect data through semi-structured interviews suited our overall aim, and its flexibility allowed us to collect rich data. Another strength of the study design is the use of thematic analysis, which allows researchers to identify patterns and themes in qualitative data (Braun & Clarke, 2013).

The relatively small sample size of only 10 educators can be a limitation, particularly when considering the quality criterion of generalizability. However, as mentioned by Braun and Clarke (2013), the concept of transferability is more applicable when it comes to qualitative research. Although the two or one subjects from each country cannot be considered representative of the entire pool of ECE educators, transferability can still be observed due to the similarities examined in the data collected from all educators. The diverse cultural background of the sample helps to broaden the perspectives of the research. Therefore, it is reasonable to conclude that the findings may be applicable to other contexts (Cohen et al., 2018). The diversity of the sample, both in terms of origin, experience, and teaching background, provides a wide variety of perceptions but can also be seen as a limitation that should be addressed in further research. Language barriers may also arise, but the fact that 7 out of 10 participants were able to respond in their first language should help to minimize any limitations.

Another weakness of this design, which has already been briefly touched upon, is the online interview model used. Online interviews lack the naturalness of face-to-face meetings, and as a result, emotional and visual cues may be missed, making it more difficult to interpret responses. This is already difficult as the analysis and interpretation of interview data can be challenging due to subjectivity and potential bias (Braun & Clarke, 2013). This poses a threat to trustworthiness, another quality criterion of qualitative research. However, this research design takes this into account by contacting individually the initial coding prior to collaborative

discussion. This step aimed to minimise individual bias and strengthen the credibility of the analytical process. In addition, the implementation of ongoing critical self-awareness through data analysis and the report of findings enhanced reflexivity. This, combined with the transparency of the theme development in the next chapter, increased the trustworthiness of this research.

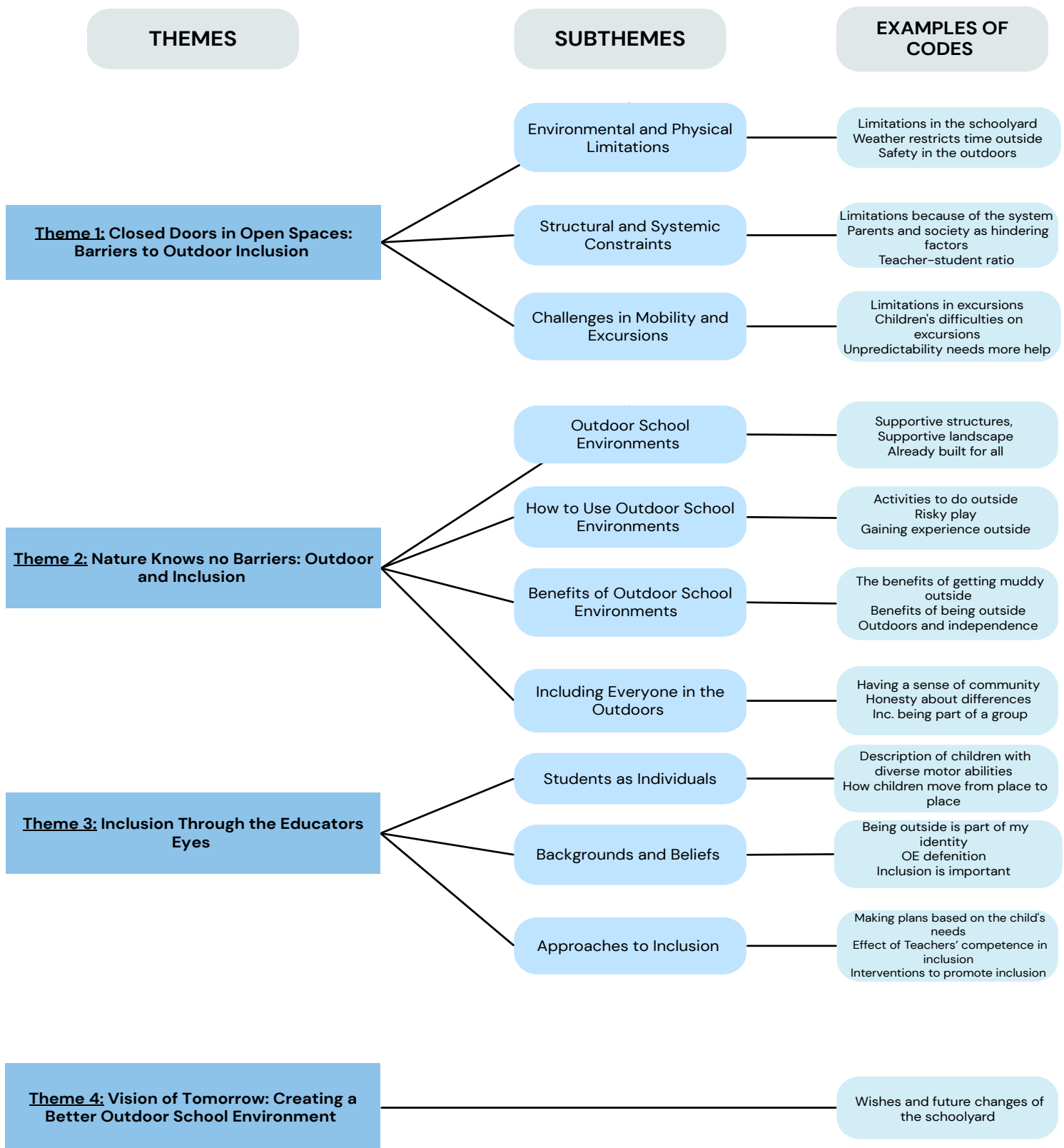
In conclusion, this study provided valuable insights into the experiences and perspectives of ECE educators on the topic of inclusion in outdoor school environments for children with different motor abilities, but it is important to consider the limitations of the design that should be addressed in further research.

5. Findings/ Results

This chapter presents the key findings from interviews with early childhood educators from multiple countries. The focus is on their experiences and perspectives regarding the inclusion of children with diverse motor abilities in Outdoor Education. The data is organized into four overarching themes (Figure 1), each of which highlights distinct yet interconnected aspects of the current situation in Early Childhood Education settings. These themes explore barriers to inclusive outdoor participation, how outdoor environments can foster inclusion, educators' perceptions and practices of inclusion in their daily work, and their vision for more accessible and equitable outdoor spaces. This thematic structure provides a detailed and nuanced insight into the challenges and possibilities of creating inclusive Outdoor Educational experiences.

Figure 1

Flow chart of the themes, subthemes, and codes that resulted from TA



5.1 Theme 1: Closed Doors in Open Spaces: Barriers to Outdoor Inclusion

This first theme captures the variety of limitations that inclusion in outdoor school environments entails for children with diverse motor abilities, as presented by the ECE educators. These limitations, as the teachers point out, fall into three different areas: 1) Environmental and Physical Limitations, 2) Structural and Systemic Constraints, and 3) Challenges in Mobility and Excursions.

5.1.1 Environmental and Physical Limitations

Across the data, several interviewees claimed that reasons related to the environment limit the opportunities for children with diverse motor abilities to exist in and benefit from the outdoor environment. More precisely, all educators identified the design and content of the schoolyard and outdoor space itself as a key barrier. The small size, the existence of gravel, and the lack of toys specifically designed to accommodate these children. In addition, the restrictions around changing existing structures were some of the responses that the participants gave. Many teachers highlighted key problems related to the accessibility of the general area and associated it with the existence of a supportive ramp. This issue was also described by Martha, who stated: “Every group has a terrace, and from there there's a ramp that leads down to the main area. A few years ago, I had a child in a wheelchair who rolled straight down and crashed.” Even when safety measures are in place, they can become dangerous if they are constructed or placed in the wrong way.

Nearly half of the interviewees acknowledged weather as a factor that restricts opportunities and time spent outside. While most of them pointed out that only extreme conditions and very bad weather will stop them from being outside, educators from Greece expressed a more profound relationship between the weather and time spent outside. “In Greece, unfortunately, the weather often dictates our choices. If it rains, we don't go outside. There's no culture of: we have our boots, our raincoats, it's okay if we get a little wet”, Thea mentioned.

Some other environmental and physical limitations mentioned belonged in the category of safety. These restrictions were due to animals, like bees, during summer, or the danger that appears when other children bike around in the schoolyard. Ebba expressed concerns about ride-on toys: “I would not have any bikes in the at the schoolyard because it's so easy that they get hit by a bike and they can hurt very much.” Another issue was that teachers and classes had to share a space with others. Outdoor environments can be holders of risks; these need to be considered.

5.1.2 Structural and Systemic Constraints

Constraints due to the system and social structure of the country were mentioned by more than half of the participants. The number of children in a classroom, which in our sample ranged from 6 to 25 pupils, combined with the proportionality of teachers, was strongly emphasized, with most of them highlighting the need for additional staff. More specifically:

The first condition for going outside with all six kids is that we need six adults, one for each child, to push them. Otherwise, we can't really manage. In the garden, we might manage with five adults, then you can lay a child on a blanket in summer or something like that. But that's the basic requirement. (Johanna)

Beyond that, it seems, from the responses of some ECE educators, that society and the views of parents can be a decisive factor and constraint. Parents' fears regarding health, hygiene, and weather significantly influence the time and manner in which teachers prefer to spend time outside with students with diverse motor abilities. The aversion that many parents have to mud and dirt places restrictions on children's experiences in nature. The educational and governmental system, with its monetary restrictions and prohibitions on the number of school outings allowed in outdoor environments, beyond the general school grounds, is equally responsible.

Now, Outdoor Education is limited to the school yard. Technically, you are allowed to take kids on an educational field trip once a month. Even if you're near the city, where museums and parks are, you still need to rent a bus, which the parents have to pay for. You need permission slips, approval - and then think about walking in the city with 25 kids, 4 and 5 years old (...). (Thea)

Especially in Greece, the number of excursions is extremely limited, with only one per month. However, educators from other countries have more freedom and are allowed to leave the premises of the ECE institution more frequently.

5.1.3 Challenges in Mobility and Excursions

Through our data, specific challenges and barriers around excursions emerged. ECE educators point out that the choice of excursions can get limited and repetitive. This limitation appears to be due to accessibility considerations for students with diverse motor abilities. They also have to consider the pace, strength, and limits of each student. Accessibility and safety on the roads and pavements also restrict the opportunities for excursions. Teachers prefer to spend time outside in the schoolyard over putting the kids in dangerous situations and environments where safety measures will impede children's exploration and learning opportunities. Thea explains that: "It's better to stay in the yard, where they'll play much more safely. Outside, I'd just be yelling 'Don't run! Watch the hole! Careful with that!' There aren't even good sidewalks in many areas. It's dangerous for kids". One interviewee also highlighted the unpredictability that usually accompanies excursions.

Now, if you're going to a theater performance, a controlled environment, you don't need much extra help. But if you're going to an open environment like a park or a traffic safety education park, or even a museum with multiple rooms or levels, then yes — you need more people, more eyes. (Iris)

Visits to new places make everything more difficult and put greater stress on the need for more stuff.

5.2 Theme 2: Nature Knows no Barriers: Outdoor and Inclusion

This theme contrasts with and builds on the previous one, providing a comprehensive overview of the reality described by educators. It includes those elements that enhance the participation and inclusion of children with diverse motor abilities, as well as the benefits this brings. Due to the wide range of topics covered, it has been divided into four subthemes: 1) Outdoor School Environments, 2) How to Use Outdoor School Environments, 3) Benefits of Outdoor School Environments, and 4) Including Everyone in the Outdoors.

5.2.1 Outdoor School Environments

When describing the schoolyard environment that each educator works with, every answer given was different and predetermined due to the specifications of each country. The size of the yard varies, with the ground being predominantly flat with grass and concrete. In accordance with some of them, the flat landscape appears to be supportive. However, some respondents mentioned the hills and slopes as elements that provide opportunities for play.

I really think those sloped areas are just amazing — because that experience (...) I mean, it's kind of sad when we later set up movement stations in the gym to replicate what kids actually experience naturally outside. And we've got three or four hills in the garden where the kids love to roll down and just make those experiences.
(Martha)

Toys and structures that are almost everywhere are swings, slides, large and small climbing structures, bicycles, and sandboxes. Some schools had more defined toys and structures for children in wheelchairs, like a specially designed swing, an inclined table, and a sandbox raised in a platform. Every school, even the ones with a tiny yard, had some sort of plantation. In some cases, that could be a handful of flowers and bushes, and in others, a large number of square meters with trees and greenery. Nearly half the participants mentioned that they think their schoolyard is already built to accommodate everyone. On the other hand, several of them mentioned small adaptations and additions they had made in order to provide a more supportive environment. Some of these adaptations were a mud kitchen or new soft flooring outside. A big variation was also spotted in the time they spent outside, both in the schoolyard and in other outdoor

school environments (e.g., forest, park, theater, library, museums, mountains, farm). Nevertheless, they all highly valued the time spent outside. “A day without the yard would be a catastrophe for us” mentioned Martha, one of the interviewees.

5.2.2 How to Use Outdoor School Environments

During the interviews it was made clear that the ECE educators view the outdoor school environment as a versatile place where several different activities can take place in. All of which provide opportunities for exploration and new experiences. Almost all of the participants underlined that there is no limit to what you can do outside, stressing the fact that all the activities one does inside can also be done outside.

(...) play movement games, team games, traditional games, and of course you can read and dramatize fairy tales. You can do experiments; we once did a volcano experiment. We went outside, shaped the volcano out of dirt, added ingredients, put in paint, and then vinegar, the kids were thrilled. You can do arts and crafts, painting — anything you do inside, you can do outside. (Thea)

High on the list of things that children and children with diverse motor abilities can do outside was risky play. One of the examples teachers mentioned was ride-on toys.

The kids have all kinds of ride-on toys, and even though it actually looks kind of dangerous, not much happens. That’s always such an aha moment for us — it’s interesting, because when you look at it, it does look dangerous, but there are hardly any accidents. So we try to let the kids just gain experience on their own. (Martha)

Ride-on toys, despite the danger they may conceal, mentioned by Austrian and Swedish teachers, were seen as an activity that enriches the learning outcomes and experiences of the students.

5.2.3 Benefits of Outdoor School Environments

After analyzing our data, some more profound and direct benefits of outdoor school environments and OE were observed in the responses of the participants. Several educators referred to the benefits of being outside, such as reduced stress and improved self-regulation. At the same time, some emphasized that being outside boosts confidence and resilience as children explore their limits.

I think being outdoors in general has huge benefits, whether it's just recess or forest mornings and that sort of thing. I think kids really live and learn out there. They get to move, to be brave, try new things, test their own limits. (Mathilda)

Through the interviews, it is evident that all the teachers find the outdoor environment and engagement with it particularly important and necessary for the development and education of children. Several of them mention the benefits of risky and muddy play.

I think the dirtier a child is, the happier he is. (...) And it's not just for preschoolers, older children can learn a lot outside too. But being in nature at these ages we are talking about, is not just beneficial, I'd say it's essential. (Thea)

Another benefit that a small part of the sample mentioned is the independence and autonomy children gain and develop when they are in an outdoor school environment. In particular, it is highlighted that field excursions and the locations where they take place offer rich opportunities and affordances for exploration and hands-on learning.

5.2.4 Including Everyone in the Outdoors

In order to create something meaningful, educators stated that a sense of community and being part of the group are essential. Everyone in a community or fellowship should be respected and heard. For them, inclusion means that children feel that they belong somewhere and that they have the same rights and responsibilities as everyone else. One educator stated that children

with disabilities should not be set apart from the rest of the group. Another one mentioned that when a class is formed, everyone should be part of it, each in their own way. Lovisa states that: “We who worked here knows that we build the children, in future”. This is because, eventually, all of the children will socialize with each other, and, of course, close friendships will form, but the children will also learn to accept each other.

So’cause, we try to be one fellowship or one community. We want to do this together. With, if you’re out, if you’re sort of a little bit outside of the fellowships or the community, then we try to bring you inside it. (Enzo)

According to several ECE educators, children are open-minded and simply say what they see. They ask questions when they notice differences in other children, especially if they are very obvious. In that case, educators should answer their questions honestly and simply, without attaching a lot of emotion to it.

In our setting, it’s really important to explain to the children why someone might have different rules or be allowed to do things others aren’t. That’s part of the inclusion mindset (...) yes, we’re a group, but we’re all different, with different needs. (Martha)

Objective communication about differences is a key concept. Only with a foundation for open conversations can differences and different needs be explained.

5.3 Theme 3: Inclusion Through the Educators’ Eyes

The following theme discusses the topic of children as individuals within the context of Early Childhood Education. It is divided into three sub-topics. Firstly, it illustrates how educators describe the individuality of children with various mobility impairments. Second, it presents their attitudes towards inclusion and Outdoor Education, focusing particularly on participation, belonging, and the social value of inclusion. Finally, it illustrates the various individual needs of children and how educators can support them to enable shared experiences. These aspects, as the teachers point out, fall into three different areas: 1) Students as Individuals, 2) Background and Beliefs, and 3) Approaches to Inclusion.

5.3.1 Students as Individuals

This subtheme describes children with various mobility limitations. It emphasizes the educators' view that every child is simply the way they are. The children described by the participants have a wide range of different disabilities. Even if they have a similar diagnosis, the children are described differently, with different aspects mentioned. One educator mentioned this aspect verbatim in an interview. Johanna explained it as: "It's a very broad spectrum – really wide-ranging".

In general, our data describes a wide variety of children of different ages within the context of Early Childhood Education. ECE educators report on various children they have encountered during their careers. Interviewees describe children whose mobility limitations range from mild motor restlessness to life-threatening syndromes. Some children are only slightly affected by their mobility limitations, while others cannot speak, walk, or open their eyes and require ventilation from a machine. What a lot of children in Early Childhood Education have in common is that they do not really notice their mobility limitations. The educators generally present various disabilities and developmental factors, such as visual impairment, epilepsy, different syndromes, cerebral palsy, congenital malformations, low muscle tone, ADHD, and autism spectrum disorder. All of these affect the children's motor skills and how they move around.

As mentioned by the interviewees, some of the children are carried by them often, due to their mobility limitations. Others use walkers or wheelchairs or are being pushed in buggies, and some can walk by themselves. One of the students who can move on their own is described by Johanna: "Yes, she can move, she scoots like a little bunny. Sometimes she has alternating movements like crawling, but mostly she puts her hands forward and hops after them (...)". When the children can move freely indoors and outdoors, they often crawl or scoot along on their bottoms. With this technique, some of them can get from place to place very quickly.

5.3.2 Backgrounds and Beliefs

In this second subtheme, educators' attitudes towards inclusion are presented. To place this in the context of Outdoor Education, the participants first attempted to define the term. Almost all interviewees described Outdoor Education as education and learning that takes place outdoors. However, most of them were unable to provide a precise definition. Instead, they described settings in which children can experience nature, such as outdoor environments inside and outside of the school property. Although the concept of Outdoor Education could not be precisely defined, its importance and usefulness were highlighted several times. One interviewee specifically emphasized that being outside was part of his identity. Enzo described: “(...) because in the Norwegian culture I feel like being outside, outdoors it's a lot of, that's the essence of being Norwegian”.

Educators not only feel that time outside the classroom is very important; they also strongly emphasized the importance of inclusion in our interviews. Several ECE educators made it clear that inclusion is important for society as a whole. They stressed that everyone should feel they belong, regardless of whether they are part of a group or community, and that respect for one another is important. Children should not be pitied but rather given the tools to help themselves. Young children, even those with mobility limitations, are often underestimated. The importance of belonging to a group was emphasized throughout.

Inclusivity means that no matter what difficulties a person has, physical, intellectual, emotional, or social (...) they can be part of a group. I strongly believe in the power of the group to perform miracles, not just for the child with challenges, but for everyone. Inclusion is a win-win situation (Thea).

The way in which inclusion should be designed is viewed differently. Some educators believe that an inclusive setting is one in which children with diverse motor abilities can participate in everyday school life. The focus here is on integration rather than segregation. However, others emphasize that inclusion requires a broader concept than this; otherwise, some children will be overlooked. Several of the participants feel that even with good support in a mainstream school,

developmental gaps would widen between the children with diverse motor abilities and the others. Furthermore, they stress that children with severe disabilities require resources that not every school has. Inclusion for them could involve preschools visiting each other to create opportunities for everyone to interact. Part of this involves helping the children to socialize with others. While the interviewees' ideas about inclusion may differ, they all strongly emphasize its importance and the challenges involved.

That's the core idea for me. But actually, making it happen is often really difficult and honestly, often pretty discouraging. From the outside, it all sounds great and of course, yeah (...) but I have some children who need one-on-one care and can only stay with us for an hour and a half, because the framework just doesn't allow for more. So the conditions and the possibilities, they're always limited. (Martha)

One interviewee emphasized that inclusion in indoor settings benefits children more than in outdoor settings because the ground outside is hard for children to crawl on. In contrast, another educator emphasized that children should be helped to overcome these challenges rather than changing the environment too much. This approach would be more sustainable in the long term and would be more enjoyable for the children.

5.3.3 Approaches to Inclusion

An important finding from our analysis is that inclusion is perceived not only as helping students overcome their problems but also as adapting pedagogical practices around them. Some children may require different support compared to their classmates, and this must be recognized and addressed. Enzo stated that while it can seem unfair to other children, it is necessary: "We treat each other equally. But we bend the rules slightly based on the needs".

The competence of the educator is often challenged. For some participants, a balance between challenge and trust is required. How educators interact with students also sets an example for the other children. Depending on how well educators integrate children, they are also accepted

by the rest of the class and seen as part of the community. Educators create an image of inclusion that the children will remember in the future.

According to them, the competence of the ECE educators is also of particular importance when it comes to making use of the given conditions. Some of them place their competence above the spatial conditions in outdoor areas. While they cannot change aggravating factors in the environment, they can react to them individually, depending on the situation. Sometimes, it is necessary to hold a child while it plays with others to minimize the differences. Or if stairs in the building are a barrier, you simply have to adapt to them and maybe even find a way to see them as training equipment.

The activities that are carried out with the children must be adapted to the children in the group and cannot be generalized.

Everything else we did focused on adapting our activities so that all children could participate equally, we all did it together (...) lay down, rubbed our stomachs on the ground, put our ears to the dirt to listen to ants walking. And that was a moment of true equality (...) when everyone was lying on the ground (Iris).

For most educators, the focus here is on being able to play and experience as a group. Everyone should be part of activities and learning.

5.4 Theme 4: Vision of Tomorrow: Creating a Better Outdoor School Environment

This final theme explores what early childhood educators need to create the most inclusive outdoor space possible. All interviewees gave very similar answers that focused on the essentials.

All of our sample emphasized the importance of having a large outdoor area with plenty of grass, soil, small plants, and trees. Depending on how much play equipment was already in their outdoor area, they requested additional equipment.

So, we're still very far from creating a fully educational playground. And you don't even need fancy things, even just some grass is enough. Kids can have fun with almost nothing. Toys aren't necessary, but of course, the more you can do to enrich the space, the better. (...) every preschool, every school, every playground should have sensory paths, seesaws and games designed for all children. (Thea)

The play equipment that was mentioned most frequently was sand areas, slides, swings, and large climbing structures with higher and lower areas and grass underneath. By "climbing structures", they meant climbing frames and trees. In addition, areas for gardening and communal dining were mentioned several times. Areas for creative play, where children can build things themselves and experiment with earth, water, and sand, were also considered important. There was a strong emphasis on mud kitchens and playing with water. Educators wanted areas where they could get wet and dirty while playing with water. One interviewee wanted a swimming pool because she believed that all children have the same opportunities in the water. Another one wanted a trampoline for even more motoric experiences. The most frequently mentioned ideas involved sensory and tactile experiences with earth, water, sand, and grass, as well as sensory paths. One interviewee requested animals to provide further experiences and adventures. Another focus was on providing opportunities for children to rest and hide.

Ah, yeah, I'd create areas where the children aren't constantly being watched. Of course that comes with risks, but I think it's really important that kids don't always feel like they're being observed. Then I'd definitely add climbing opportunities (...) but natural ones. (Elisabeth)

Educators also requested changes to their current outdoor areas, particularly with regard to improving accessibility. Depending on the country the educators were from, the wishes varied a bit, but overall showed many similarities. This included installing ramps at all entrances, desired especially by Greece and Austria, among other things. For instance, some of the sandboxes had edges that were too high for children to climb over unaided. The little house used for storing toys was also inaccessible. One educator said that she would like play equipment that can be used by children in wheelchairs, mentioning swings and carousels. In general, it was suggested that a natural, soft surface on which children can crawl

without pain would be desirable. To protect slower-moving children, it was suggested that the area where children can ride vehicles should be separated.

To save time and make life easier for the interviewees, it would also be helpful if there were designated areas for the above-mentioned features rather than having to set everything up separately. In particular, a place for water and muddy play was mentioned. Several also mentioned the desire to involve the children in the planning process of designing an area where everyone feels comfortable in.

A number of ideas have come together for the wishes and adaptations of the outdoor areas. Nevertheless, most educators refer to important principles such as having enough space and access to grass and soil. One interviewee also said that she would like an outdoor area that is not too crowded and that allows the children to be creative.

6. Discussion

This chapter presents a further analysis and contextualization of the findings, exploring their relevance to related fields of research. The implications of the findings will be examined and compared with those of previous studies and theoretical concepts, and possible interpretations of the results will be discussed. The following part of the thesis aims to enrich the understanding of the studied phenomenon and contribute to the field.

The purpose of this study is to explore and understand the perceptions of ECE educators in six different countries regarding the inclusion of outdoor school environments for students with diverse motor abilities. By focusing on the challenges these children face, as perceived and navigated by educators, as well as the adjustments and strategies implemented in response, the research provides valuable insights into the dynamics of inclusion in outdoor learning environments.

The discussion that follows interprets the findings in relation to the study's two central research questions: (1) What limits or enables children with diverse motor abilities in outdoor school environments according to ECE educators? and (2) How should outdoor school environments be adapted to better support these children, based on educators' experiences? Through this analysis, the discussion aims to highlight practical implications in creating more inclusive and accessible outdoor learning environments in early childhood settings.

6.1 Limiting Aspects in Outdoor School Environments

To answer the first research question regarding limiting and enabling factors for children with diverse motor abilities in OE settings, we now contextualize the educators' described limitations by linking them to the literature. This also allows us to identify where our findings align or contrast with existing research.

A major limitation emphasized by educators was the lack of thoughtful design and structure in outdoor areas. Many described environments that were not welcoming or accessible, which often resulted in exclusion. Our findings support Lumsdaine and Thurston (2017), who describe how exclusion from public spaces can negatively affect children's sense of belonging. The educators' views confirm that inclusive design plays a crucial role in participation and social integration. This highlights how design decisions are not neutral but can shape children's experiences, and either enable or hinder inclusion.

Standardized playground designs were also criticized by educators for neglecting children with diverse motor abilities. This led to minimal engagement with certain equipment and physical barriers, like uneven terrain. These insights resonate with Jeanes and Magee (2012), who similarly found that standardized schoolyards limit participation. However, our findings suggest that the consequences go beyond access; they may also impact children's self-esteem and sense of agency. If outdoor environments were developed with Universal Design for Learning (UDL) in mind, more children could experience autonomy and meaningful interaction with peers and the environment. Even though outdoor spaces and materials were adapted as good as possible to support diverse needs, some of them were not inclusive enough. This need for accessible design reflects Harte's (2013) emphasis on removing physical barriers to support diverse learners.

Collaboration with legal guardians emerged as another significant factor. Some parents act as advocates, but others unintentionally create restrictive conditions due to fears or misconceptions. This dual role is discussed in Kvalnes and Sandseter (2023), yet our findings suggest the impact may be even more immediate in practice. Educators often felt caught between their professional judgment and parental preferences, which sometimes led to compromised learning opportunities. This tension supports the view that systemic change is necessary. As Berhanu (2011) and Lindqvist and Nilholm (2011) argue, institutional resistance, not children, is often the biggest barrier. Our findings affirm this and show how structural issues hinder the implementation of UDL's core principles. When educators cannot engage all learners or offer varied means of representation and expression, inclusive education becomes an aspiration rather than a reality.

Another persistent concern was understaffing. Educators shared that limited personnel made it impossible to safely engage in exploratory outdoor learning. This concern is consistent with Carlo et al. (2013), who attribute such shortages to retirements and increased workloads. Yet what our data reveal more vividly is the emotional toll this takes on educators. Their frustration reflects a deep professional commitment, but also systemic neglect. The lack of staff not only limits activities but also leads to cautious, risk-averse decisions that contradict the exploratory spirit of Outdoor Education. A shortage of staff was a common experience reported by educators from every country, mentioned by nearly every educator. However, through direct comparison, it became clear that the need for additional staffing is especially pronounced in Greece.

Educators also highlighted how parental perceptions influenced children's participation. Some children internalized limiting beliefs about their own abilities, shaped by their guardians'

concerns. This was echoed by Connors and Stalker (2007), but our findings point to the subtle ongoing nature of this influence. For example, fears about dirt or risk led to pressure on educators to avoid messy play. While literature such as Kandemir and Sevimli-Celik (2023) and Kvalnes and Sandseter (2023) supports this, our research shows that every educator we interviewed wanted to resist these pressures, but some lacked institutional backing. That institutional support was stronger in Sweden and Norway than in the other countries. The lack of support was particularly evident in Greece, but other countries struggled as well. The potential of messy and risky play as a tool for engagement, part of UDL's multiple means of engagement, is thus stifled. If parents recognized its learning value, educators might have more freedom to use it to foster motivation and curiosity.

Weather, hygiene, and clothing concerns also limited outdoor opportunities. Educators noted that city environments made dirt seem threatening and donot enriching. This perception, also mentioned by Grosvenor and Myers (2019), meant some avoided activities they knew were beneficial. While some concerns are understandable, this dynamic again shows how adult anxieties restrict children's learning. Seasonal changes and weather sensitivity led to cautious routines, reducing spontaneity and exploration. These findings suggest that a cultural shift, and not just a policy change, is needed to embrace the full potential of Outdoor Education.

Finally, external hazards such as traffic posed real challenges, especially when staffing was insufficient. Educators often felt unsafe taking children beyond school grounds. Abdollahi et al. (2024) describe how vehicle speed, volume, and road design create risks. Our findings support this but also point to the practical implications: educators limit excursions not by choice, but by necessity. This therefore implies that structural limitations not only operate within the school settings, but also influence pedagogical decisions at every level.

In summary, our findings confirm many issues raised in the literature but also add nuance. They reveal how educators navigate tensions between ideals and daily constraints, and how their professional judgment is often compromised by systemic limitations. This underscores the urgent need for structural change, particularly in staffing, design, and parental engagement.

6.2 Enabling Aspects in Outdoor School Environments

After focusing on the limiting aspects in the previous section, this one is now dedicated to the enabling and supporting aspects of OE for children with diverse motor abilities. This includes the general benefits of outdoor play, as well as muddy and risky play. Ultimately, the importance of community is highlighted in order to achieve all these goals.

Educators emphasized that thoughtfully designed outdoor spaces promote accessibility and independence for all children. Our findings support Al-Azawei et al. (2016) and Hallberg and Klingberg (2023), who argue that inclusive design fosters autonomy. A recurring theme that emerged was the transferability of educational content to the outdoors. Educators noted that almost any subject can be meaningfully taught outside. One educator remarked that "everything that has value indoors retains that value outside." This supports Gruenewald (2003), who highlights the value of place-based learning. Yet our findings go further by showing that outdoor settings are not only viable alternatives but may actually enhance certain subjects by providing real-world context and sensory engagement.

Educators consistently reported a wide range of benefits associated with outdoor learning, such as reduced stress, better self-regulation, and improved confidence. These observations resonate with studies by Passy et al. (2019), Roberts et al. (2020), and Kandemir and Sevimli-Celik (2023). Our study demonstrates that these outcomes were particularly valued for their role in promoting inclusion. Educators viewed outdoor settings as leveling spaces where differences in motor abilities became less pronounced, and peer interactions more organic.

Risky play was described as essential for building resilience and body awareness. Most educators frequently emphasized that children learn to manage risk better through experience, and that injuries were rare despite initial appearances. The beneficial aspect of risk was especially highlighted by educators from Norway, Austria, and Greece. Since the Swedish curriculum supports play in a risky way, we were surprised that the Swedish educators did not highlight this aspect more. The outcomes related to risky play align with Brussoni et al. (2015) and Kvalnes and Sandseter (2023), who found no increase in serious injuries from risky play. Our findings highlight an important nuance: educators viewed risky play not only as safe but as a necessary developmental tool, particularly for children who often experience physical challenge in a different way. This suggests that removing risk can actually hinder personal growth.

Muddy and messy play was another enabling factor. One educator remarked that "the dirtier the child, the happier," reflecting a broader sentiment that such activities spark joy and curiosity. Our findings support the sensory benefits highlighted by Wagenfeld and Kennedy (2024), but also extend this view by emphasizing the social and emotional richness of these experiences. Messy play was not just tolerated but embraced as a path to engagement and confidence, especially for those who might struggle in more structured environments.

Community emerged as a vital component. Educators described how outdoor play fosters inclusion by encouraging teamwork and shared experiences. This is consistent with the idea that social learning environments can support diverse learners (Wagenfeld & Kennedy, 2024). Importantly, our data also suggest that outdoor settings can dissolve rigid group dynamics, allowing children with diverse motor abilities to participate more freely. The concept of Universal Design for Learning was not explicitly mentioned by participants, but many of their strategies align with its core principles, particularly in terms of providing multiple means of engagement and participation (Harte, 2013). They adjusted tasks to individual needs by modifying and simplifying games to make activities more accessible and, therefore, being part of the group easier. Educators emphasized emotional safety and built strong relationships to enhance motivation. By doing so, inclusive practices are reinforced, ensuring that all children can actively and meaningfully participate in outdoor experiences. According to Harte (2023), when Outdoor Education is intentionally planned with UDL in mind, the diverse needs of children are addressed proactively. This validates our findings about the teachers' conscious actions that foster quality environments that support rich interactions, exploration, and learning for every child.

Overall, our findings affirm much of the existing literature while offering new insights grounded in educators' lived experiences. They illustrate how outdoor environments, when intentionally designed and inclusively managed, can foster not only access but also meaningful participation and developmental growth. Educators incorporated multisensory experiences, such as cooking with mud and muddy play, to support diverse learning styles and enhance engagement, reflecting the principles of UDL. Their perspectives add practical depth to academic frameworks like UDL and underscore the importance of community, choice, and challenge in inclusive Outdoor Education.

6.3 Teachers' Beliefs and Views on Children

To better answer the second research question, it is essential to understand the educators' beliefs and how they conceptualize Outdoor Education (OE) and inclusion. These concepts directly influence the adaptations they make and the needs they have. Our findings show that although definitions varied slightly among the ten participants, all generally viewed OE as education and learning that occurs outside the classroom. This range of explanations aligns with Quay and Seaman (2013), who argue that OE encompasses a variety of different interpretations. Our findings support this view as all interviewees offered different definitions, likely shaped by their educational experiences and national backgrounds.

Despite the lack of uniformity in the definitions given, most of the educators utilized outdoor environments in similar ways. This consistency was surprising given the diversity of the interviewee sample. Schoolyards were often used for free play and exploration. In contrast, the school excursions were mainly linked with designed activities and learning goals. These activities regularly incorporated the physical space into the educational process, reflecting what Fägerstam (2012) and Gruenewald (2003) describe as transforming space into a meaningful place. What stands out in the data is that all educators emphasized the value of Outdoor Education and Outdoor Play for young children. This unanimous view supports findings by Kandemir and Sevimli-Celik (2023) and Wagenfeld and Kennedy (2024), but also reveals that outdoor spaces are not just seen as teaching sites, but also as emotional and relational landscapes where children can express themselves and build social bonds.

When asked about inclusion, educators unanimously emphasized the importance of everyone feeling included. Being part of a group was also viewed as crucial for kids with diverse motor abilities. This emphasis mirrors the key principles of the Salamanca Statement (UNESCO, 1994), where inclusion is portrayed as a fundamental right of all learners. What is particularly striking in this inquiry is that many educators placed greater emphasis on adapting teaching methods and pedagogical practices than on making changes to the physical environment. This is in line with children's rights and the Salamanca Statement, as both highlight the need to adapt pedagogies and ECE programs to better include students in the classroom (UNESCO, 1994; UNICEF, 1989), and also adds depth to how inclusion is conceptualized. An unexpected insight that emerged during the analysis was the perspective of a few interviewees who mentioned that, in some cases, inclusion is not always possible or even beneficial, especially for children requiring intensive one-on-one support. While not central to the present thesis, this viewpoint is noteworthy as it challenges dominant discourses and invites further exploration into the complexities and boundaries of inclusion. This raises a question of

whether or not specific circumstances should and can define children's inclusion.

Several of the educators also pointed out that personal competence plays a major role in fostering inclusion. Holding a child or carrying it around are some small things that the participants do and believe help support the students with diverse motor abilities. These findings echo Åström's (2023) observation that educators' facilitation is essential for social inclusion and resonate with Hallberg and Klingberg (2023), who stress the impact of inclusive attitudes on children's ability to thrive. In addition, the examples mentioned above reflect how educators often fill the gaps left by inaccessible environments through personal initiatives and care.

Overall, the perceptions shared by educators align well with the core goals and philosophy of UDL. The way interviewees stressed the need to adapt and adjust teaching and the environment around the children comes hand in hand with the aims of UDL, which is to create equal opportunities for learning for all. Rather than replacing the human element of care and adaptability, UDL provides a structured approach to designing inclusive environments. (CAST, 2018). Based on the findings, there is an indication that the use of UDL could help ECE educators design more inclusive environments and practices, something they are already striving to implement in their daily work. Keeping in mind that educators viewed play not as a separate form of learning but as its most inclusive expression, UDL emerges not just as a framework for removing barriers, but as a tool for amplifying the educational value of outdoor, child-led exploration.

6.4 Adaptations of Outdoor School Environments

To explore how outdoor school environments can become more inclusive for children with diverse motor abilities, this section examines the specific adaptations educators identified as necessary. An association with relevant literature will also be made. Our findings revealed that restrictive or underdeveloped play structures and toys frequently limited children's participation. In response, educators expressed a range of wishes for changes and additions that could promote inclusion.

Through their answers, it becomes clear that a welcoming and supportive school environment is essential for reducing the challenges these students face. This reinforces existing literature asserting that schools must proactively plan for equal participation through thoughtful and appropriate pedagogical planning (UNESCO, 1994). Interestingly, a proportional relationship was observed in our data: educators working in more restrictive and under-resourced systems more frequently emphasized the role of institutions in ensuring inclusion. While these findings align with previous arguments about the right to educational access (UNICEF, 1989), they also highlight how local contexts shape educators' priorities and frustrations.

Many interviewees stressed the importance of open green areas and earthy textures, which they believed supported motor development. Since preschool children are relatively young for wheelchairs, the need for pathways was not urgent. The educators' desires ranged mainly between more general structures and toys such as swings, slides, earth and water areas. As stated in the interviews, each child uses what he or she needs for their development, which reflects the idea that well-designed general features can still support diverse needs. At the same time, a strong call for specifically adapted equipment was made. This is another indirect link between the educators' answers and Universal Design for Learning, as part of its focus is designing learning that is inclusive for all students from the beginning, accommodating their needs (CAST, 2018).

Importantly, what our data revealed is not a demand for elaborate or expensive changes, but a call for intentional, inclusive design. ECE educators advocated for modest, thoughtful additions that prioritize function and inclusion over complexity, presenting a challenge to the common assumption that "more" is better. Instead, our findings suggest that simplicity, when designed with inclusion in mind, may be more effective. Small additions such as a simple raised garden bed at wheelchair height or installing adjustable-height tables and sandboxes outdoors could serve a wide range of children. They reflect the idea that inclusive design doesn't have to be complex to be impactful.

What also emerged in our data was a personal dimension connected to design. Several educators would like to include and implement children's ideas in the design of the outdoor environments. They, therefore, see children not just as users but as co-creators of these spaces. This aligns with inclusive principles but also expands them by emphasizing shared responsibility and agency. In addition, the findings of this study further support the claims made by Wagenfeld and Kennedy (2024), as the interviewees highlighted an urgent need for inclusive and thoughtful design of outdoor spaces that will eliminate any barriers to children's participation in the educational process. Several educators underscored the need for basic, enabling infrastructure, especially in countries like Greece, where inclusion efforts are still developing. This again connects to children's right to an adequate standard of living (UNICEF, 1989) and demonstrates how inclusive education must address both physical infrastructure and pedagogical approaches (Berhanu, 2011; Lindqvist & Nilholm, 2011). What perhaps this indicates is that these physical modifications are foundational. Without addressing these, more advanced goals for inclusive education may remain unattainable.

The general recommendations and concerns that emerge from the respondents' thoughts and experiences are indirectly related to what Universal Design for Learning stands for. What is essentially proposed is to address and resolve the barriers to the behavior and education of children with diverse motor abilities in a way that focuses on the characteristics and needs of the children (CAST, 2018). If the design of outdoor educational environments is made based on the diversity of students as expressed in the UDL framework (Al-Azawei et al., 2016), the quality of these environments will be significantly improved and will have positive consequences on student development (Harte, 2013).

7. Conclusion

This study examined how Early Childhood Education (ECE) practitioners in six countries perceive the inclusion of children with diverse motor abilities in outdoor learning environments. Findings revealed that while outdoor spaces can support physical, emotional, and social development, access is often unequal. Poor design, staffing shortages, parental concerns, and institutional constraints can hinder participation and foster exclusion for children with diverse motor abilities.

At the same time, outdoor environments hold powerful and often untapped potential for inclusion. When intentionally designed with accessibility and diversity in mind, these spaces can offer rich sensory experiences, nurture peer interactions, and support holistic development. Educators observe that inclusive outdoor settings help children build resilience, confidence, independence, and a genuine sense of belonging.

To unlock this potential, educators consistently emphasized the need for outdoor environments that accommodate a broader range of abilities. They advocated for open, natural settings featuring elements like grass, sand, and water, alongside accessible play equipment and safe transitions such as ramps. Their answers implied the need for Universal Design for Learning (UDL) principles to create inclusive spaces from the outset, rather than retrofitting for minimal compliance.

The study also highlighted the critical role educators themselves play in fostering inclusion. Through small yet meaningful actions, like adapting routines, encouraging peer support, and using space creatively, they actively shape environments where all children can participate and thrive.

In conclusion, inclusive outdoor education depends not only on accessible design but also on a cultural shift in how we value and respond to diversity. Centering children's needs and voices in the design and daily practice of outdoor learning not only upholds their rights but also enriches the educational experience for all. This research contributes to the growing global movement toward more inclusive, equitable, and participatory learning environments.

7.1 Future Research

To further close the research gap on inclusive Outdoor Education and continue our research, a few more factors could be taken into consideration. In our study, we examined the perspective of ECE educators on inclusive Outdoor Education settings. This topic could be examined from other perspectives, particularly that of children, which is especially important, as well as that of legal guardians. Narrowing the scope of the research and focusing on a specific country would allow a specific disability to be analyzed in terms of how it is addressed. It would also be interesting to investigate more the pedagogical and teaching methods that educators use and the modifications they imply. Analyzing pictures of outdoor environments or observations of children would provide a more accurate representation of the research area and to our study. In future research, we would like to analyze the link to UDL further, as it seems to be a very effective tool for inclusion, as well as addressing the issue of exclusion in other age groups. This thesis should be viewed as a foundation for future research; it should provide food for thought and experimentation for further investigation and validation of the aforementioned findings.

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Appendix

Appendix 1 – Information Letter

Creating more inclusive outdoor experiences for kindergarteners:

Invitation to an interview

We are Angeliki and Alba, master's students in Outdoor and Sustainability Education at Linköping University. Our backgrounds are in Early Childhood Education and Inclusion & Special Needs Education. We decided to research the inclusivity of kindergarten schoolyards in our master's thesis and explore how they can be improved. To achieve this, we would like to collaborate with preschool teachers from Sweden, Norway, Austria, Germany, Switzerland, and Greece.

We are looking for kindergarten teachers who work with children with mobility limitations, ranging from mild to severe. Including but not limited to children on the autism spectrum, those with muscle weakness, neurological or coordination disorders, and those who use walking aids or wheelchairs.

We would greatly appreciate your participation in a one-time interview. Your insights and experiences as educators are invaluable in shaping more inclusive outdoor environments for children. We consider you experts in this field and would greatly value your insights and experiences in creating a more inclusive outdoor environment for children. If you are interested or have any questions, please feel free to reach out.

We hope to hear from you soon, Angeliki & Alba

Contact:

+43 699XXXXXX

Email address researcher 1

Email address researcher 2

Appendix 2 - Consent Form

Consent form

Thank you for reading the information letter about this study. If you are happy to participate, please sign the form below.

I confirm that I have read and understood the information letter dated 07-04-2025 and have been given the chance to ask questions about it.

-I don't expect to receive any benefit or payment for my participation. I understand that my participation is voluntary, and that I am free to withdraw at any time without giving any reason and without there being any negative consequences. In addition, should I not wish to answer any particular question or questions, I am free to decline.

-I understand that my responses will be kept strictly confidential and stored according to LiU data regulations. I understand that I will be kept anonymous, that my name will not be linked with the research materials, and will not be identified or identifiable in the report or reports that result from the research.

- I agree for this interview to be recorded and for its contents to be transcribed. I understand that the recording made of this interview will be used only for the master's thesis. I understand that no other use will be made of the recording without my written permission, and that no one outside the research team will be allowed access to the original recording.

- I understand that any photographic material I may provide the researchers with will not be used outside of the purposes of the master's thesis.

- I agree to take part in this interview.

Name of participant	Date	Signature

Researcher	Date	Signature

Copies: Once this has been signed by all parties, the participant should receive a copy of the signed participant consent form and of the information sheet. A copy of the signed consent form will be placed in the main project file, which must be kept in a secure location.

Appendix 3a – Interview Guide

- To begin with, could you share a bit about yourself as a teacher? (How long have you been teaching? what kind of educational background do you have, Teaching interests, age groups you teach)
- How would you define outdoor education?
- What kind of activities and teaching do you do outdoors?
- Since we will talk about inclusivity a lot, what does this concept mean to you?
- I would also like to know more about your students with physical limitations. Can you describe them?
- How would you describe the yard that the school has? (how big it is, does it have toys or constructions, any plants, different materials, differences on ground levels...)
- How do you think the schoolyard here supports the students you just talked about?
- Can you give me some examples of specific features or equipment in the schoolyard that support them? (how do they support their participation/ engagement/ social skills/ motor skills)
- How do you think the schoolyard here limits these students?
- Can you give me some examples of specific features or equipment in the schoolyard that limit them? (how do they hinder their participation/ engagement/ social skills/ motor skills)
- If you made some adaptations to the schoolyard, can you give me some examples of the most successful adaptations?
- If you think about a setting outside of the schoolyard, for example excursions, how would you describe the limits and enabling aspects there? (predictability)
- Imagine you had the opportunity to redesign the schoolyard. What features would you add or change and why?
- I think that's basically everything I had to ask you to talk about, um have you got anything else you'd like to say or any kind of final thoughts or any things you'd like to follow up that I haven't asked you?

Appendix 3b - Interview Guide in German

- Könnten Sie zu Beginn etwas über sich selbst als Lehrer:in erzählen (wie lange unterrichten Sie schon, welchen Bildungshintergrund haben Sie, welche Interessen haben Sie, welche Altersgruppen unterrichten Sie)?
- Wie würden Sie Outdoor-Pädagogik definieren?
- Welche Art von Aktivitäten und Unterricht machen Sie im Freien?
- Da wir viel über Inklusion sprechen werden, was bedeutet Inklusion für Sie in Ihrem Alltag und in Ihrer Arbeit?
- Ich würde auch gerne mehr über Ihre Schüler:innen mit körperlichen Behinderungen erfahren. Können Sie sie beschreiben?
- Wie würden Sie den Schulhof beschreiben, den die Schule hat? (wie groß er ist, ob es Spielzeug oder Konstruktionen gibt, ob es Pflanzen gibt, verschiedene Materialien, Unterschiede im Bodenniveau...)
- Wie unterstützt der Schulhof hier Ihrer Meinung nach die Schüler:innen, über die Sie gerade gesprochen haben?
- Können Sie mir einige Beispiele für besondere Merkmale oder Ausstattungen auf dem Schulhof nennen, die sie unterstützen? (Wie unterstützen sie ihre Beteiligung/ ihr Engagement/ ihre sozialen/ motorischen Fähigkeiten)
- Was denken Sie, wie der Schulhof hier diese Schüler:innen einschränkt?
- Können Sie mir einige Beispiele für bestimmte Merkmale oder Ausstattungen auf dem Schulhof nennen, die sie einschränken? (inwiefern behindern sie ihre Teilnahme/ ihr Engagement/ ihre sozialen Fähigkeiten/ ihre motorischen Fähigkeiten)
- Wenn Sie einige Anpassungen auf dem Schulhof vorgenommen haben, können Sie mir Beispiele für die erfolgreichsten Anpassungen nennen?
- Wenn Sie an eine Umgebung außerhalb des Schulhofs denken, z. B. an Ausflüge, wie würden Sie die Grenzen und die ermöglichenden Aspekte dort beschreiben? (Vorhersehbarkeit)

-Stellen Sie sich vor, Sie hätten die Möglichkeit, den Schulhof neu zu gestalten. Welche Elemente würden Sie hinzufügen oder ändern und warum?

- Vielen Dank, Sie haben alle meine Fragen beantwortet. Haben Sie noch etwas zu sagen oder abschließenden Gedanken/Dinge, die Sie gerne weiterverfolgen würden, über die wir noch nicht gesprochen haben?