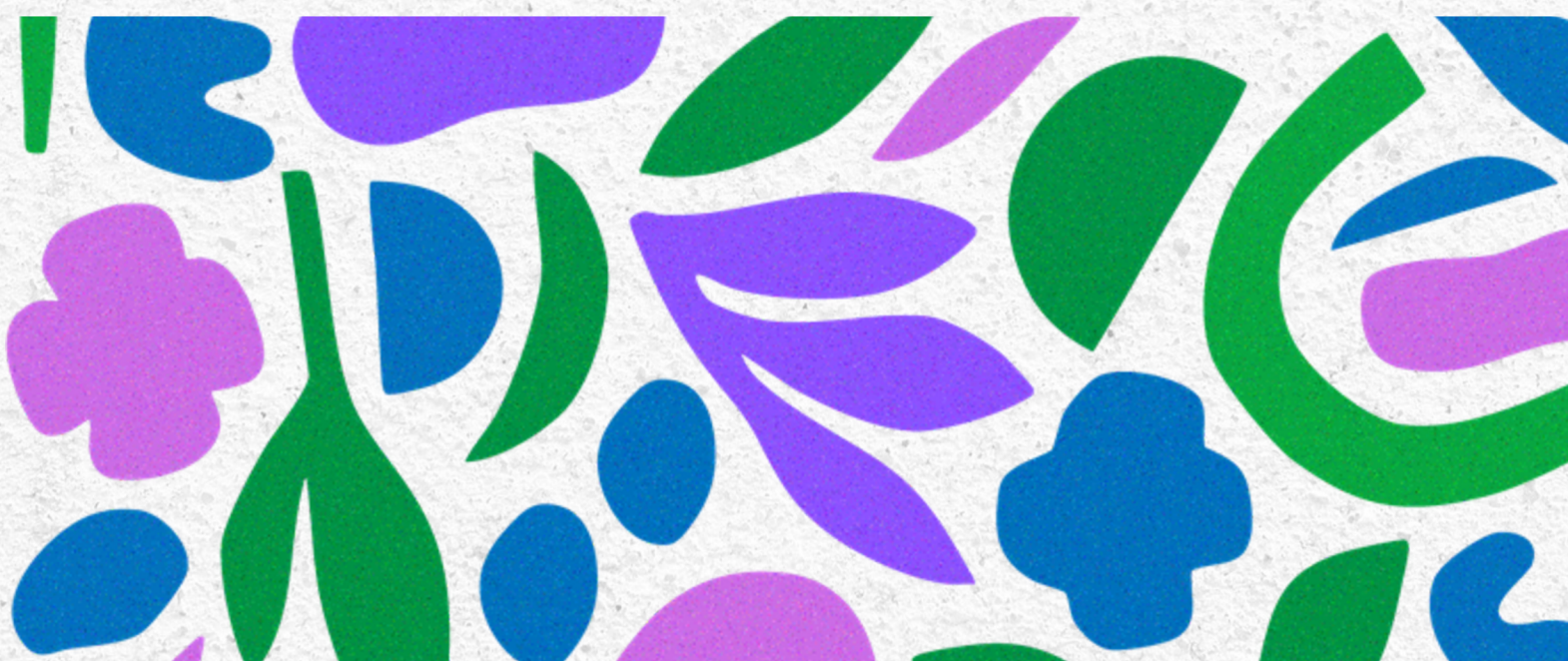


EXPLORING GENDER DYNAMICS IN FOREST SCHOOL KINDERGARTENS

Andreia Esteves



CONTENTS

1. Introduction

2. Theoretical framework

2.1 Research objectives and questions

2.2 Research methodology

3. What is gender?

4. What is forest school pedagogy?

4.1 Nature-based education: the origins

4.2 Nature-based education: non-western perspectives

5. Discoveries from the ground: gender dynamics in forest school kindergartens

5.1 Results from interviews

5.2 Results from surveys

6. Conclusion

7. Bibliography



INTRODUCTION 01

Between the ages of two and six, children begin to form the foundations of gender identity (their internal sense of being male, female, both, or neither) through a complex interplay of biological maturation, cognitive development, and social experience.

During this period, children start to recognize and label gender, imitate adult behaviors, and explore identity through play, language, and relationships. According to developmental psychology, early gender identity is fluid, exploratory, and strongly influenced by context rather than fixed or purely biological (Kohlberg, 1966; Martin & Ruble, 2004).

Play, imagination, and social feedback all contribute to how children understand gender roles and express themselves. When adults respond with openness, respect, and validation (avoiding rigid expectations) they create the psychological safety necessary for children to integrate identity with confidence and authenticity.

Supporting gender exploration in early childhood is therefore not about directing outcomes, but about allowing space for discovery, acceptance, and self-definition, essential foundations for healthy sexual and emotional development later in life.

“Teach the children. We don’t matter so much, but the children do. (...) Give them the fields and the woods and the possibility of the world salvaged from the lords of profit.” –Mary Oliver, *Upstream: Selected Essays*

As research on the field of sociology highlights, schools are key spaces for secondary children’s socialisation. It is at school that children discover what is deemed “appropriate”, embed universal values, and start learning societal norms. Indeed, alongside their immediate family context and culture at large, schools are spaces that have the potential to decode or reinforce differentiated gender roles and stereotypes from an early age. (Gecas).

Moreover, despite there still being limited research on the subject, the potential of Forest School pedagogies as propellants of gender-equity in their offering of alternative traditionally constricted worldviews and challenging of dominant gender norms is becoming increasingly recognised among scholars. (Hine).

Thus, to begin to explore the interaction of gender and education in nature-based settings, this study considered the following research question: *How do gender dynamics manifest themselves in children's play and interactions in outdoor kindergarten environments using the Forest School pedagogy?*

This report shows the results conducted under REGEN - RE-imagining Gender in Education in Nature: an Erasmus + project proposing an innovative research approach between gender studies and outdoor education that relied on the collaboration of three forest schools (located in Belgium, Italy, and Spain) and QUEST, an independent European network focused on children's rights in education (based in Belgium).

The study was conducted using the following research methods: a literature review looking at previous findings on the topic within the national contexts of Belgium, Italy, and Spain; field observations in the three kindergarten forest schools part of the REGEN project; recorded interviews to educators working at said schools; and, lastly the publishing of an online survey open to any educators working in nature-based education projects in and outside Europe (kindergarten, primary, or otherwise).

In addressing the main research question, this study offers a brief overview of Forest School pedagogy and gender-based education in Europe, exploring the challenges and possibilities of promoting gender equity in outdoor-based early education.



THEORETICAL FRAMEWORK

2.1 Research objectives and questions

The leading purpose of this research is to contribute to a broader understanding of how gender dynamics play out in nature-based education kindergartens (children aged 2-6), having the three forest schools directly involved in the REGEN project as primary case studies.

Other research objectives include:

- providing a broader understanding of what the forest school pedagogy is, its origins and developments;
- supporting educators in identifying gender-related barriers and inequalities in their work.

The main study objective was formulated in the following research question:

How do gender dynamics manifest themselves in children's play and interactions in outdoor kindergarten environments using forest school pedagogy?

Further research questions include:

- Which characteristics (physical, expressive, personal) do children associate with gender?
- How do gender identity matters emerge in the language used by children?
- When is gender identity used in social dynamics (e.g. inclusion/exclusion, estrangement)?
- Do contradictions emerge between family/cultural contexts and the different team's inputs?

2.2 Research methodology

POSITIONALITY

It's our belief that acknowledging a researcher's biases and their inevitable limited view on a particular research topic, can lead to greater transparency about the preconditions said research builds on. As scholar Donna Haraway highlights in "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective", all knowledge is "situated" – i.e. shaped by the social and historical context of the knower. Neutrality, as a goal, is therefore unachievable, for knowledge always comes from somewhere (Haraway).

In this context—and in the spirit of full transparency—prior to the start of this study, all researchers involved in the REGEN project were invited to reflect on their personal motivations with the guidance of the following questions:

- How do my own identity, experiences, and biases influence how I observe and interpret gender dynamics?
- What theoretical frameworks and cultural assumptions am I bringing to this study of gender in forest schools?
- How might my role and interaction with participants shape the dynamics I observe?
- How can I ensure that my findings promote inclusivity and challenge gender stereotypes?

Taking into consideration the lens through which the phenomenon of gender dynamics in forest schools was analysed, the head researcher—Andreia Esteves—has tried to highlight the scope and limitations of the study at hand and the deeply personal connection each researcher holds to the topic, showing how these may inform the data presented.

APPROACH

For the purpose of this research, a socio-constructivist approach was deemed appropriate.

Considerations include the fact that:

1. The research has relied heavily on qualitative data methods (interviews and field observations), despite also having collected quantitative and numerical data through online surveys.
2. The research aimed to explore a vastly complex socio-cultural phenomena, i.e. the relationship between nature and culture in the forest, gathering contextual data about educators' and children's lived experiences and perspectives.

In a nutshell, "this approach involves active participation and collaboration between the researcher and participants, aiming to co-construct meaning rather than seeking objective, detached truth." (Bergold and Thomas).

Moreover, as a learning methodology, social constructivism "emphasizes student involvement, discussion, and knowledge exchange", all principles that echo with those of Forest School pedagogies. (Saleem, Kausar and Deebea).

Finally, a feminist standpoint approach was also carefully considered throughout the research process, as this theory is "informed by an acceptance of the way in which different experiences, needs and interests give rise to different practices, and different ways of thinking about and interacting with the world (...)." (Bowell).

TOOLS

The research approach was based on four main research methods detailed below:

- Field observations
- Literature review
- Interviews
- Surveys

Field observations

For this research project, we wanted to question the research process by proposing a different approach where theory is generated directly from the data (**grounding theory research**), allowing the educators-researchers' own perspectives and experiences to emerge without being constrained by pre-existing literature or hypotheses. To collect qualitative data from the field, participant observation was used.

This research method relies on researchers being actively engaged in the environment or community they are studying, while also observing and recording behaviours, interactions, and practices.

To better collect the data, each REGEN partner focused on a specific category of observation. The division took into consideration the expertise of each member of the consortium and was made as follows:

INTERACTION WITH THE (OUTDOOR) LEARNING SPACE

(Lead: KWEEBUS, Belgium)

Focus Areas:

- Mapping how children use the outdoor space
- Interaction with different natural and learning elements

Guiding Questions:

- Which areas of the outdoor space are used most frequently by boys, girls, or mixed groups? Are there "gendered" zones?
- How do children interact with natural elements (eg.: climbing trees, collecting items)? Do these interactions reflect patterns associated with gender?
- Are there specific learning or play elements that appeal differently to boys and girls? If so, why?
- How does the design/layout of the space encourage or inhibit inclusive gender interactions?

SOCIAL INTERACTIONS, DYNAMICS, AND ACTIVITY ENGAGEMENT

(Lead: EDUNAT, Spain)

Focus Areas:

- How social interactions and play reflect gender stereotypes
- Inclusion/exclusion patterns and gender-specific preferences

Guiding Questions:

- What leadership roles, if any, do boys or girls take during group activities? Are these roles gendered?
- How are conflicts resolved, and do boys and girls use different strategies or narratives?
- Which activities or games are most popular among boys, girls, or mixed groups? Are preferences influenced by gender norms?
- How do inclusion/exclusion patterns emerge during play? Are any activities or groups more gender-segregated?
- Are there physical characteristics (eg.: strength, agility) being associated with gender during interactions?

VERBAL/BODY LANGUAGE AND DISCOURSE ANALYSIS

(Lead: Educare Nel Bosco Pecorile, Italy)

Focus Areas:

- How gender identity themes emerge in children's language and non-verbal communication

Guiding Questions:

- What phrases or comments do children use that reflect gender stereotypes or inclusivity? (eg.: "Only girls do that" or "Boys are better at...")?
- How do children express themselves through body language during play? Are there gendered patterns?
- Do children's narratives or role-play scenarios include gendered characters or roles? How do they assign roles?
- How do children respond when challenged about their gendered assumptions in speech or play?

ROLE OF EDUCATORS AND ADULTS *(Lead: QUEST, Belgium)***Focus Areas:**

- How educators/adults influence gender narratives through their actions, language, and values.

Guiding Questions:

- How do educators encourage or discourage specific behaviours or roles for boys and girls? Are their responses gendered?
- Are there differences in how feedback or encouragement is provided based on gender? (eg.: praising boys for physical achievements and girls for creativity).
- What language do educators use when addressing the group or individuals? Does it reinforce or challenge gender norms?
- Are there visible biases in how educators structure activities or mediate conflicts?
- How do educators themselves reflect on gender stereotypes in their practice?

Literature review

The second step in the research has been the evaluation of the available literature on gender dynamics in forest schools with the objective of systematising, collecting and synthesising previous research on the topic, and confronting it with our observations. Though the literature is still scarce on the field, particularly in respite to the countries that are part of the consortium (Belgium, Italy, and Spain), quantitative and qualitative data has been broadly collected in different languages focusing on gender roles and stereotypes in education in nature, integrating findings and perspectives from research studies in different European regions.

Interviews

In order to better learn the role educators can play in the shaping of gender dynamics in their specific work contexts, in-person interviews were conducted and recorded during field observations. The participants included main researchers from the three schools involved in the project, as well as other educators employed at these schools. This participation tool was deemed relevant as it allowed for a better understanding of the challenges faced by teachers and how they may differ depending on the country-specific context.

Surveys

An online survey was conducted to collect data from educators working in nature-based education in and outside of Europe. The survey was available in the four main languages of the countries participating in the REGEN project (English, French, Italian, and Spanish) and received a total of 58 answers. The goal was to grasp a broader understanding of which tools, resources, experiences, and challenges educators face when it comes to navigating gender dynamics in schools using forest pedagogy. An overview of each language survey analysis is provided in chapter four.

03 WHAT IS GENDER?

"Gender is not something that one is, it is something one does, an act, a 'doing' rather than a 'being'." —Judith Butler, Gender Trouble



WHAT IS GENDER?

When examining gender in the context of nature-based education, it is essential to recognise it as a social and cultural construct rather than a fixed biological category. Moreover, taking into account the present research has relied heavily on field observations, alongside other qualitative methods, the researchers involved in the REGEN project, found it essential to dedicate a chapter of this study to define what we talk about when we talk about gender. This brief overview encompasses key definitions, how gender can manifest itself in school settings, and a contextualisation of modern-day anti-gender campaigns.

The Genderbread Person v4 by its pronounced **METROsexual** 2017

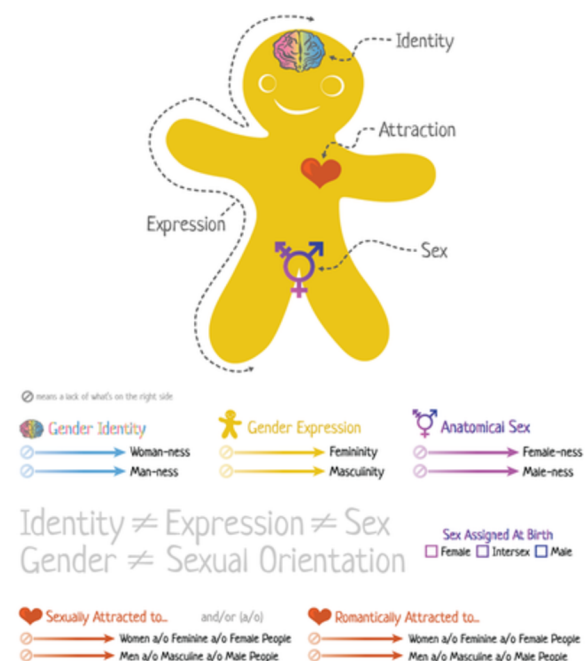


Fig. 1: The Genderbread Person

GENDER: A POCKET-SIZE GUIDE

According to the WHO (World Health Organization), gender refers to:

"the characteristics of women, men, girls and boys that are socially constructed. This includes norms, behaviours and roles associated with being a woman, man, girl or boy, as well as relationships with each other."

As a social construct, gender does not exist in a vacuum, i.e. it is a phenomenon that intersects with other social markers such as gender identity, sexual orientation, age, disability, ethnicity, and social economic status, among others.

Despite interacting with it, gender differs from one's sex characteristics as it is not binary, i.e. it doesn't exist in mutually exclusive either/or categories, but rather in a continuum. The following glossary terms compiled by the organisation ILGA-Europe provide a concise and clear explanation of these key notions. A visual representation can also be found in figure 1 above.

Gender

refers to a social construct which places cultural and social expectations on individuals based on their assigned sex.

Gender expression

refers to people's manifestation of their gender identity to others, by for instance, dress, speech and mannerisms. People's gender expression may or may not match their gender identity/identities, or the gender they were assigned at birth.

Gender identity

refers to each person's deeply felt internal and individual experience of gender, which may or may not correspond with the sex assigned at birth, including the personal sense of the body (which may involve, if freely chosen, modification of bodily appearance or function by medical, surgical or other means) and other expressions of gender, including dress, speech and mannerisms. Some people's gender identity falls outside the gender binary, and related norms.

Sex

the classification of a person as male or female. Sex is assigned at birth and written on a birth certificate, usually based on the appearance of their external anatomy and on a binary vision of sex which excludes intersex people.

A person's sex, however, is actually a combination of bodily characteristics including: chromosomes, hormones, internal and external reproductive organs, and secondary sex characteristics.

Sexual orientation

refers to each person's capacity for profound affection, emotional and sexual attraction to, and intimate and sexual relations with, individuals of a different gender or the same gender or more than one gender.

For children aged 2-6, gender is an emerging and evolving aspect of self-understanding. At this stage, gender is not yet a fixed or deeply internalized identity but a developing cognitive and emotional construct, influenced by how children interpret the world around them and how others respond to their expressions. They learn about gender through language, observation of adult roles, peer play, and symbolic representation in stories or toys. Importantly, their understanding is concrete, playful, and fluid, and when adults provide acceptance, diverse models, and a nonjudgmental environment, children can integrate gender as one of many natural dimensions of their identity, fostering early self-confidence, empathy, and emotional well-being.

GENDER IN EARLY CHILDHOOD EDUCATION

In early childhood education, gender roles can shape how children engage with their surroundings, access different types of play, and interact with their peers and educators. However, these roles are fluid and subject to change, making it crucial to critically analyse how they are reinforced or challenged within different educational settings.

As Maynard points out, forest school practitioners “often navigate complex power hierarchies that intersect with deeply embedded gender norms.” (Maynard via Garden). As further explored in chapter 4 of this study, despite not being confined to a traditional school environment, children in forest schools may still exhibit gendered behaviours that stem from their home context, either by reinforcing or subverting traditional gender roles.



Additionally, current literature supports that gender can manifest itself even in environments perceived as neutral, for, “the meaning of gender as a category is made psychologically salient to children through cues”, such as colour-coded toys, clothes, language, etc. (Bigler and Liben via Garden).

Having said that, Garden and Downes are among the scholars who see forest schools in particular as a “liminal space, where traditional and progressive gender roles coexist and are continuously renegotiated”: a reality which can open up the possibility for challenging gender binaries and fostering a more inclusive learning environment. (Garden and Downes).

04

WHAT IS FOREST SCHOOL PEDAGOGY?



WHAT IS FOREST SCHOOL PEDAGOGY?

04

4.1 Nature-based education: the origins

Nature-based education as we know it has its origins in Germany in the mid-1800s. The idea of schools in the “open air” later spread throughout Europe and North America with the concept beginning to be established in Sweden, Denmark, and other European countries in the 1950s. (Harper).

In the 1980s Forest School as a pedagogical practice became an element of the Danish Early Years curriculum (Swarbrick, Eastwood, and Tutton). Following a visit to Denmark in the 1990s, a group of educators from Bridgewater College developed the concept in the UK (Slade et al.) and forest school pedagogy has become increasingly popular across the country ever since.

Though there have been plenty of definitions of outdoor education throughout the years, in general terms, the concept refers to a type of education “in, about, and for the out-of-doors.” (Ford) in which some form of inquiry-based learning occurs, stimulating a child’s sense of curiosity and wonder.

In addition, this type of education is often deemed attractive for offering children an opportunity to develop confidence and self-esteem, as well as other important competences like environmental stewardship and active citizenship, through hands-on learning. Aspects that may be overlooked when a rigid curriculum is set, as it happens in conventional teaching settings. (Johnston).

Finally, as Vidal points out: “programs in learning about the outdoors occur at all levels in the educational system, although they are most frequently found in kindergarten or elementary schools.” which are precisely the age target this study covers.

Nature Pedagogy and its contribution to the ethical and human formation of childhood

Nature pedagogy, the theoretical and practical foundation of Forest Schools, has emerged as a comprehensive response to 21st-century crises born from human disconnection from nature. This holistic approach fosters children's cognitive, emotional, physical, social, and ethical development through a direct, sustained, and respectful relationship with the natural environment. Ultimately, it seeks not just knowledge acquisition, but to cultivate an ethic of care, cooperation, and sustainability, thereby forming citizens committed to a more just and balanced world. Interest in learning within natural environments has grown significantly in recent decades, driven by research demonstrating the benefits of regular contact with nature for children's physical and mental health (Louv, 2005; Chawla, 2015; Kaplan & Kaplan, 1989).

Philosophical and pedagogical foundations

Historically, nature pedagogy is rooted in the Scandinavian tradition of *friluftsliv* ("open-air life"), the European progressive education movement (Dewey, Montessori, Decroly..), and the social pedagogy of Paulo Freire. Its contemporary form, the British Forest School, is defined as a long-term educational process in natural settings where trained professionals facilitate planned, self-directed experiences to foster autonomy, confidence, and resilience (Knight, 2013; Forest School Association, 2022).

Epistemologically, it is grounded in constructivist (Piaget, 1954; Vygotsky, 1978) and situated learning theories, which view knowledge as a product of interaction between the individual, community, and environment. Thus, the forest becomes a classroom, and the natural environment becomes an active educational agent.

The ethical and human dimension of nature pedagogy

Beyond its cognitive contributions, nature pedagogy constitutes a formative practice in essential human and ethical values. Through daily contact with the forest, children learn respect for life, empathy toward other beings, cooperation among peers, and shared responsibility for the environment.

Each daily experience in a forest school (lighting a fire safely, caring for an insect, building a group shelter, engaging in spontaneous free play, cook bread in the campfire, hike, climb trees, play under the rain, jump in puddles, rescue a bird, adapting to changing environmental conditions, learning in mixed-age, low-ratio adult/kid groups, and living the natural phenomena and seasons) becomes a holistic and integrative experience in which the value of care is embodied in every session.

Specialized literature indicates these early experiences strengthen ecological awareness and a sense of belonging to the living world (Carson, 1956; Naess, 1989; Capra, 1996). Environmental ethics are thus internalized as a lived practice of interdependence. As Sobel (2008) argues, authentic ecological commitment in adulthood emerges from emotional relationships with nature.

Social and ecological implications

In social terms, the nature pedagogy model fosters cooperation, peaceful conflict resolution, and nonviolent communication (Rosenberg, 2003). Group dynamics in natural contexts encourage horizontal, inclusive, and empathetic relationships in which each participant assumes shared responsibility.

From the perspective of critical environmental education, such experiences contribute to the formation of ecological citizenship individuals aware of planetary boundaries and the need to transition toward sustainable ways of living (Elliott & Kruse, 2020).

Nature pedagogy and forest schools therefore are not merely an educational method but a cultural and ethical proposition. It seeks to restore the symbiotic relationship between humanity and the biosphere, breaking with the anthropocentric logic of the environmental crisis. This paradigm integrates knowledge, emotion, and ethics, educating for being and coexistence, not merely for knowing. By reconnecting children with the natural world, it lays the foundation for a more just, peaceful, and sustainable society.

4.2 Nature-based education: non-western perspectives

Although the present study was carried out in Europe, it felt relevant to dedicate a section of this chapter to recognising non-western perspectives in outdoor education, as these can offer deeper understandings to what is otherwise a limited view of the topic.

Indeed, scholars, such as Newbery, argue that forest schools remain socially and culturally constructed western forms of education and should therefore be restructured in order to include the history of Indigenous peoples and acknowledge the legacy of colonialism.

Concerning key differences, they start in language. Whereas in Western education the terms kindergarten and Forest School are commonly used, Indigenous perspectives to this model of education tend to prefer the term land. Johnston declares that the word land implies “our direct and sustained connection with the earth”, meaning that “even when we are at home or in school or at work, we are on the land.” (Johnston)

Moreover, in contrast to western education perspectives, indigenous approaches to outdoor education tend to favour a holistic model, in which the connection of the people to the natural environment, i.e. to the land: “exists beyond the concrete connection to place” (Hansen). It is a worldview that recognises every living being has a spirit and is interconnected.

As Indigenous writer Ailton Krenak claims, the planet is not a resource to be exploited, but rather a living, vibrant, sacred being — where each element has its value, role, and dignity. Whilst this understanding of the Earth as a living organism represents a part of indigenous people’s culture and wisdom, for the rest of humanity it only came with scientific investigation. (Oliveira).

Finally, Krenak suggests that our future on Earth is actually ancestral, arguing that a better future can be found by looking back at the ancestral wisdom and knowledge of indigenous communities:

“Indigenous children are not taught, but guided. They do not learn to be winners, because for some to win, others must lose. They learn to share the place where they live and what they have to eat. They have the example of a life in which the individual counts less than the collective. This is the indigenous mystery, a legacy that passes from generation to generation. What our children learn from an early age is to put their hearts in tune with the rhythm of the earth.”

–Ailton Krenak



05

DISCOVERIES FROM THE GROUND: GENDER DYNAMICS IN FOREST SCHOOL KINDERGARTENS



DISCOVERIES FROM THE GROUND: GENDER DYNAMICS IN FOREST SCHOOL KINDERGARTENS

5.1 Results from interviews

In this section, we will look at a selection of interviews conducted by QUEST to educators from EDUNAT and Educare Nel Bosco Pecorile respectively. Interviewees were asked to expand on their pedagogical approach concerning gender dynamics in their work context and encouraged to provide examples of gender stereotypes or barriers they may have encountered in their practice. The major underpinnings of each interview are detailed below.

PATRICIA AND GABRIEL'S INTERVIEW (EDUNAT)

When asked about encountering gender stereotypes in the language used by the children, Patricia states: "last year it was the first time I heard a comment (like that) from a kid. A boy during one of our courses said to another child, 'You can't play with that, because that is not for girls.'" This incident stood out precisely because it was so rare. The educators reported that they did not typically find issues with gender stereotypes in their own forest school, nor in their observations of the other partner schools, a fact that led them to muse that "maybe we're doing something right." Observations by the Belgian and Italian teams during research visits to the Mallorca forest school confirmed this, and attribute this dynamic to some of their foundational principles : a pedagogy based on respectful accompaniment, low



adult-to-child ratios, supportive families, the inherently democratic nature of learning outdoors, and “the incredible opportunities that Mother Nature provides”. Ultimately, they see it not as an innovation, but as a return to a more natural mode of being. As Patricia reflects, “We are not inventing anything, we are returning to nature.”

What’s more, Patricia and Gabriel mention: “if you go to a recess of any regular school in Spain or in Europe, the outdoor space is mostly paved cement and there are designated areas for football.” This observation is starkly confirmed by a review of satellite imagery from public and private schools in Europe, which reveals playgrounds dominated by printed football lines, often occupying over 80% of the available space. The researchers explain how this infrastructure reinforces a specific social dynamic: football becomes a gender-dominated game, rarely including girls or boys with different interests and skills.

This stands in direct contrast to the forest school environments in Italy, Belgium, and Spain, where the “installations” are nature itself : inclusive, less gender-stereotyped, and open to diverse forms of play.

According to Gabriel, there is also a nuance of prejudice that surpasses gender when it comes to football in schools, and that intersects with other factors. Children may exclude someone else from playing – boy or girl – based on perceived skill, or height, for instance: *tu no juegas porque no juegas bien, tu no juegas porque es más pequeño, etc.*



This urban space configuration is not, however, a reality unique to countries or continents. Indeed, researchers Honorata Grzesikowska and Ewelina Jaskulska have looked at how boys and girls occupy schoolyard spaces, and their findings are quite telling.

In a report published in 2024, Grzesikowska and Jaskulska consider how—at least in a traditional school setting—the school ground represents a space of greater freedom from adult control and an organised classroom structure, claiming that “it is in this space that stereotypical social and cultural gender roles can be clearly seen being imposed. Here, children encounter both acceptance and exclusion for the first time, with the assessment of their appearance and physical fitness.” (Grzesikowska and Jaskulska).

After conducting a series of observations of children's paths in a primary school in Krakow, the researchers found that "the boys' movement patterns (figure 4) involve intense, concentrated movement on the pitch" whereas "the girls' movement map (figure 5) has a different character. It shows the peripheral activity of the students." (Grzesikowska and Jaskulska).

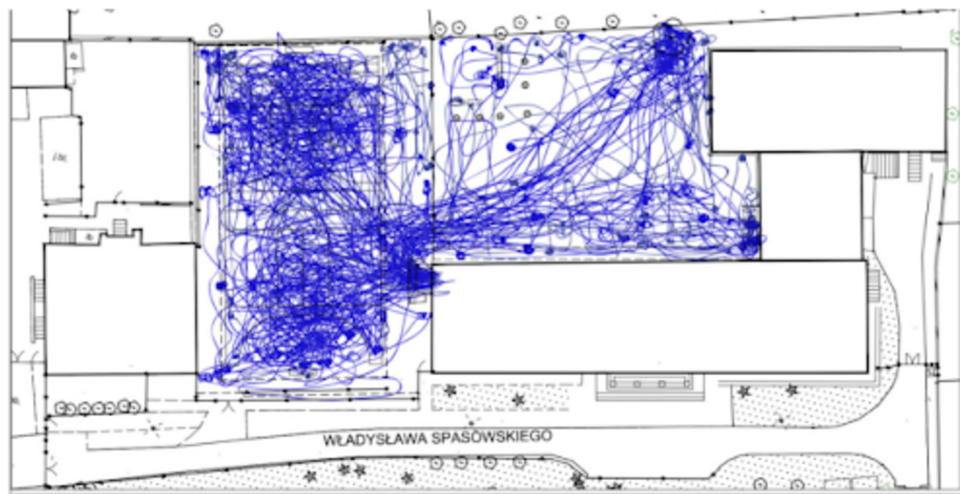


Fig. 4 Map of boys' movement in the school area

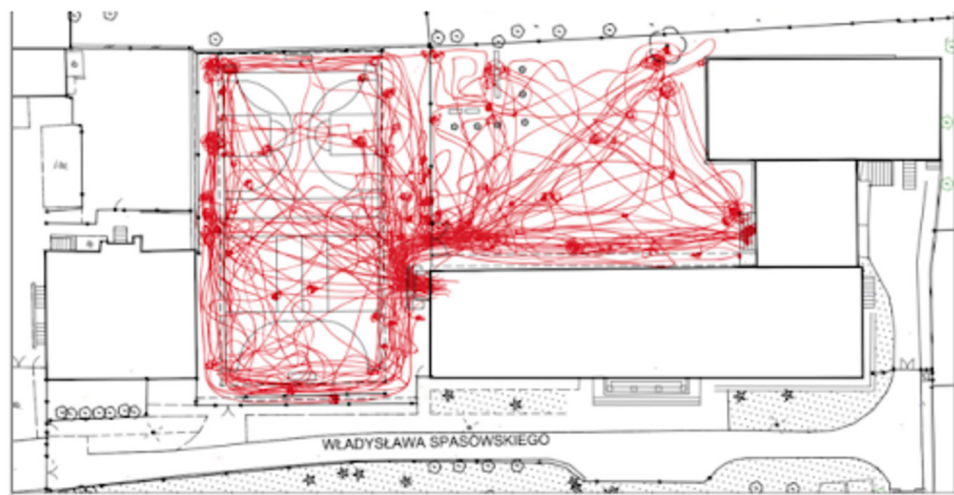


Fig. 5 Map of girls' movement in the school area

Based on the observations and surveys conducted, Grzesikowska and Jaskulska infer that the fact that girls are practically absent in the pitch area of the schoolyard may mean that "despite the desire to use this part of the school space, for some reason girls do not feel "welcome" there or the sports activity they would like to perform does not fit the framework of a classic football or basketball pitch."

In another study carried out over a year in two schools located in Catalunya, Spain, the same researchers found a similar pattern. Here, as in Krakow, “boys (mostly athletic boys) use the field while all others (girls and boys who are not interested in specific most popular sports) are excluded.” (Subramanian and Rice).

On the topic of gender stereotypes in their own school setting, Gabriel adds that the environment of a school is not gender-proof. “There are girls that sometimes come to the school dressed with tutus or in full princess costume... or boys with tractor t-shirts, or famous cartoon stereotyped male characters, most of the costumes end destroyed, full of mud or ripped and hanging from a tree or bush at the end of the day, they don't mind, mixing the play of the forest with traditional kid games. When they do that, we ask them if they like it, we try to do not judgement or feed the need of approval for what they're wearing, in all cases. A thing that is very important to observe and work with the kids is if that character has some characteristics that leads to a rigid gender stereotype identity. But things can flow and is very interesting how gender roles change without reason, and are assigned with “no respect” of being a boy or girl. We believe that dynamic and changing roles in play are healthy, rigid and repetitive roles and characters is something you have to observe and talk with the team.”

“As a pedagogical team of forest schools and education in nature projects, we find that all things from “outside” come everyday to the forest school, but we feel incredibly lucky to have the opportunity to talk and think with the kids about cartoon characters, stereotypes in toys, books, costumes, clothes, not adopting a confrontation attitude but a reflective and critic thinking one. We have also the privilege to work with low ratios and a group of project principles and foundations, and also with an incredible team, which permit us to have the time and space to accompany the learning and play of the kids. can you imagine your kid classroom with 21 kids and 5 teachers?



Additionally, when kids show up to the school dressed as a character and ask us what we think of their costume, we ask the kid in question, if they are happy and if they feel pretty and comfortable in what they are wearing.

It is a matter of returning the responsibility back to the child: *y saber se a el/ella está contenta por lo que és y con lo que tiene por ella, no porque el adulto o alguien de fuera lo determinó*. Both Patricia and Gabriel emphasize: “we don’t want to feed these types of (gendered) behaviours, because society takes care of that by itself”.

“Sometimes the game of ‘gun’ appears in the group. It is almost 100% brought into the group, mostly by boys from “outside”. In our projects, there are few things about which we are uncompromising and rigid. One of them is playing with weapons to simulate carrying them, pointing, shooting, and “killing”. Most of the children who play this game have no idea of the true meaning of what they are simulating, when they say ‘bang!’ and point at others. We ask them about it every time if they know what they’re doing.

I remember one day a mother was terrified because her child had pointed his finger at his grandmother (who was a child during the Second World War). They never bought him a toy, he never saw television or comics in which a weapon appeared, they never talked about it or played with it at home, so how did this child make that gesture? We are not isolated; we have social relationships in different places, and the subject of weapons is always present.”

Gabriel explains that he suspects this means something similar to ‘*deus ex machina*’, a magical object, impregnated with incredible power, an impossible unstoppable resolution to dilemmas that is absolute and decisive only by showing pointing and shooting an imaginary weapon. It is an object charged with mystical symbolic power that can instantly fulfil our wishes and prerogatives. It is similar to a magic wand, a genie in a lamp, a superhero friend, or a sword of fire, a greek good. a robot bodyguard, etc. It is very important to work thoroughly with children, especially boys, on this issue.

“Our forest school team does not negotiate or negotiate in this case: ‘We don’t play with guns here,’ sorry for our intolerance with this. And we seek to reflect and work with them on this issue, trying to somehow interrupt the cycle of transmitting the culture of weapons to the next generations.

In short, there seems to be a constant review of behaviour, language, posture, and attachment on the educators’ side with considerations around cultural nuances and background, as well as the teaching of consent being listed by the interviewees as a priority in their daily work.

In short, there seems to be a constant review of behaviour, language, posture, and attachment on the educators' side with considerations around cultural nuances and background, as well as the teaching of consent being listed by the interviewees as a priority in their daily work.

FRANCESCO'S INTERVIEW (EDUCARE NEL BOSCO PECORILE)

Francesco has a background teaching kids and teens with disabilities and learning challenges. When being interviewed he stressed the benefits he sees in forest school pedagogy, namely in the socialization of children, and self-directed learning: "The pedagogy of the forest school makes sense to me. The kids learn by doing, with experience, they learn a different way to interact with other kids, instead of being closed off in four walls. I think walls are a problem, because they contain children. When they are contained the kids do not express themselves."

In addition, when asked about examples of gender dynamics at play in the school he is currently working at, Francesco answered the following: "I noticed a lot of differences when compared to my previous experience in traditional schools, because here the kids (pause) here it is difficult to identify what are the games of girls and the games of boys. The beautiful thing is that we can observe and intervene without surveilling them. Here I feel very free and relaxed to observe and listen (when compared to regular schools, public schools in particular, which is the context I know)."

Finally, he concluded that when a stereotype strikes us as violent, "there is a certain impulse to intervene, of course. However, what I notice is mainly cultural. I think it is the cultural context that will slowly change, I am sure."



FRANCESCA AND ANNALISA'S INTERVIEW (EDUCARE NEL BOSCO PECORILE)

Francesca and Annalisa's interviews were recorded separately. However, the main findings are discussed here together, considering the overlapping patterns found in their answers. Following up what Francesco mentioned in his interview, Francesca was adamant about how, in her view, domestic roles are persistent in Italian culture. She elaborates:

"In the games the children play, I've noticed the appearance of more traditional roles. The females being more domestic, or of care and they say things, such as the mom works at the home and the kids and the dad works outside. When I ask them, doesn't the mom work too? They say things such as, yes, she does but in "house things" (implying that it is different because it happens inside the house)."

Moreover, Annalisa builds on this idea, stating that the "boys don't cry" mentality is still present in Italian culture: "We believe that kids should be able to express themselves regardless of their gender. I have noticed that, for example, among boys, the pressure to not outwardly express emotions such as sadness is very present."

Furthermore, she highlights the role forest school pedagogies can play in children's socialization and emotional

regulation, affirming that those who have this experience as children: "know how to relate with another person in a healthy, adjusted way and that I think has a major impact on society."

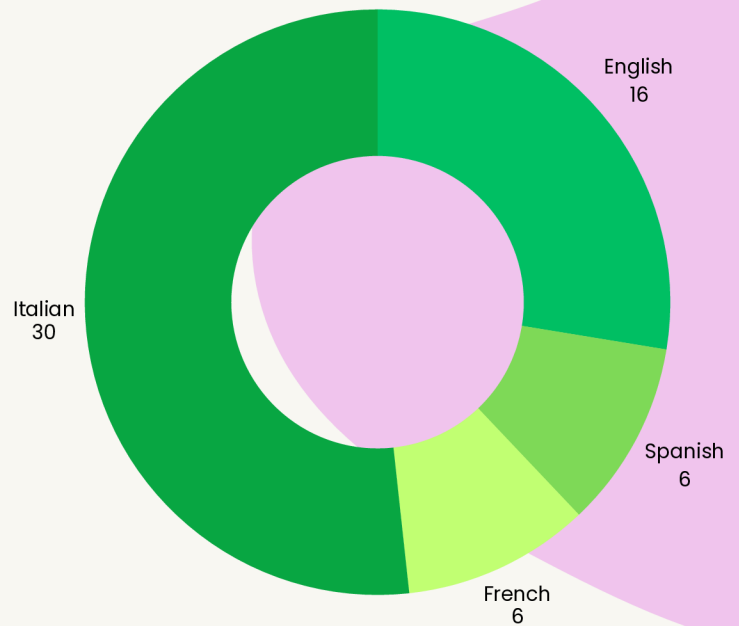
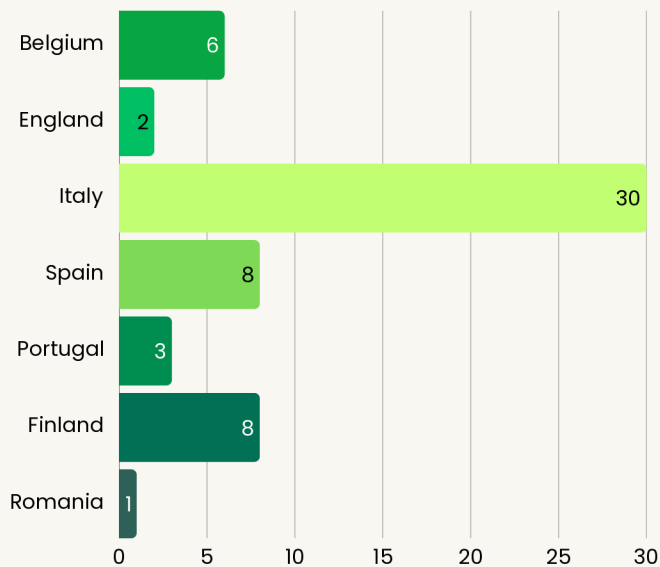
To sum it up, it is noticeable that, for the interviewees, the particular national context in Italy is one that heavily influences traditional gender roles. This raises the question of how the interactions observed by the educators would change, would non-traditional family models be present in the school fabric, such as queer families, adoptive families, and/or communal or polyamorous families, for example.



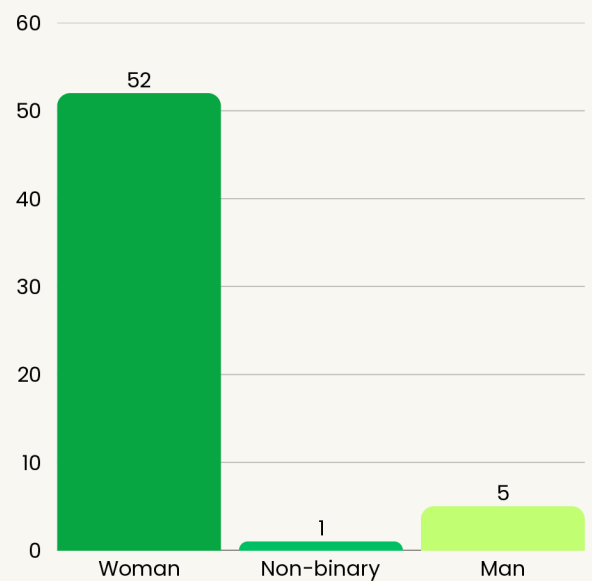
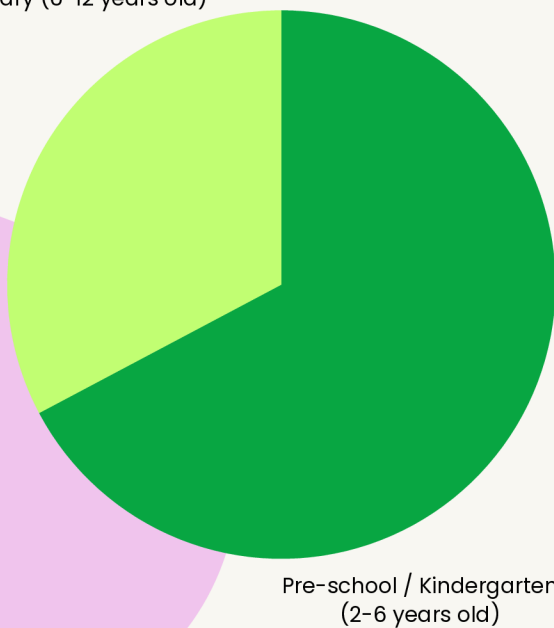
4.3 Results from surveys

GENERAL OVERVIEW

TOTAL: 58

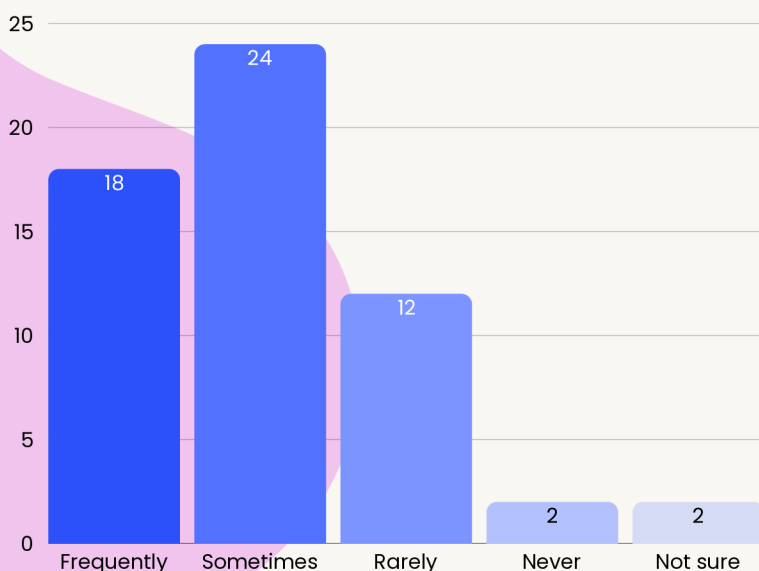


Primary (6-12 years old)



DATA ANALYSIS OF SURVEY RESULTS

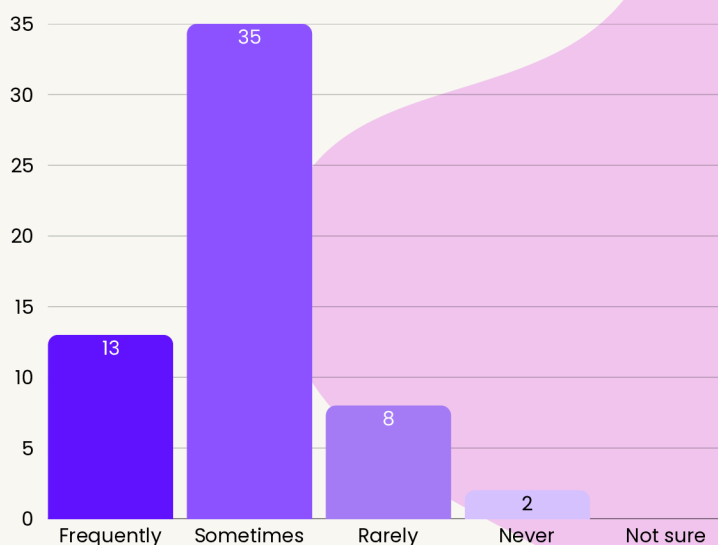
Have you ever looked at your group with a gender "lens"? Have you ever thought about it?



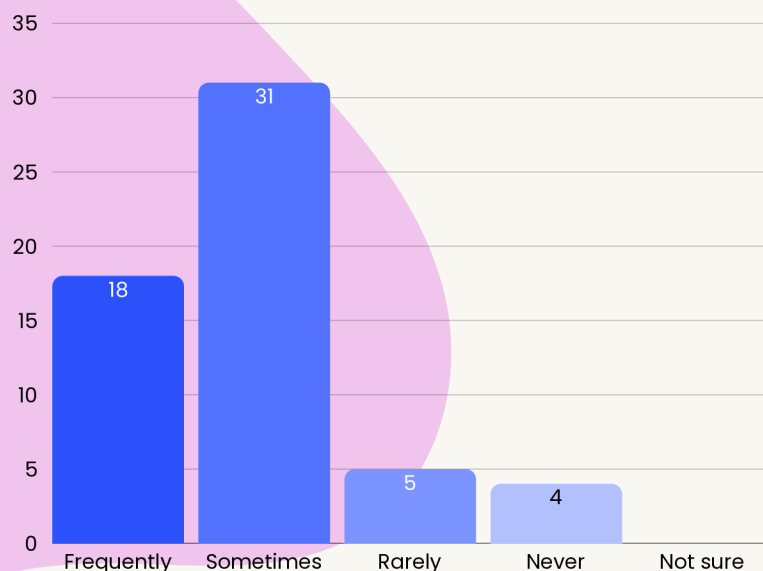
The majority of educators report having considered gender when observing group dynamics in their work contexts in forest schools.

How often do you notice gender-based patterns in how children engage with activities (eg., risk-taking, tool use, nurturing play, free and spontaneous play)?

In terms of activity engagement, around 35 of the educators have noticed gender-based patterns with a somewhat inconsistent frequency, with 15 answering it's something they have frequently observed.



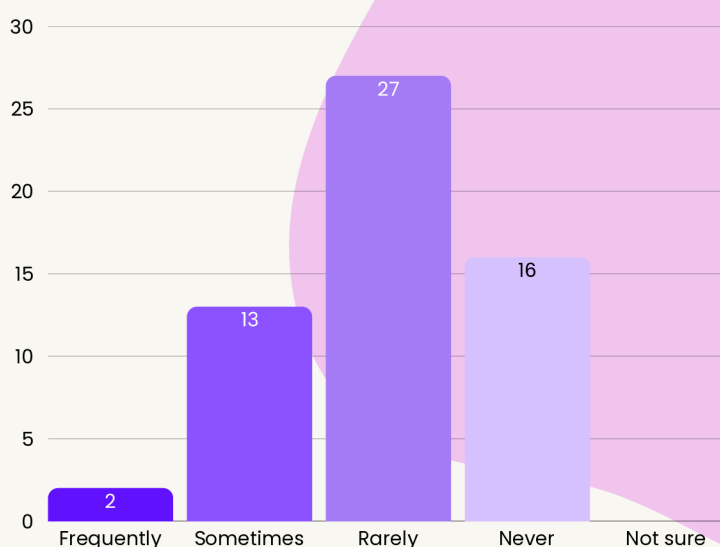
In your experience, do children tend to form play groups based on gender?



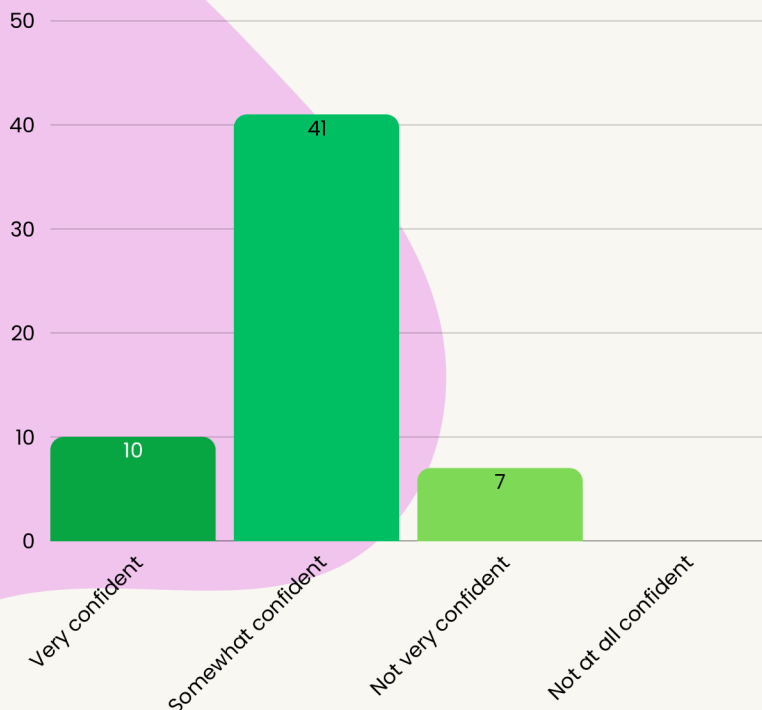
More than half of the educators surveyed state the children sometimes tend to form play groups based on gender, with the next larger number of responses, reporting it is something frequently experienced.

Have you observed children policing each other's behavior based on gender expectations? (e.g., "girls can't climb that high", "boys don't play house / with dolls")

In contrast to previous answers, almost half of the educators surveyed state having rarely noticed children policing each other's behaviours through comments based on gender roles and expectations with the second largest group, around 15 people, affirming never having experienced this type of situation.



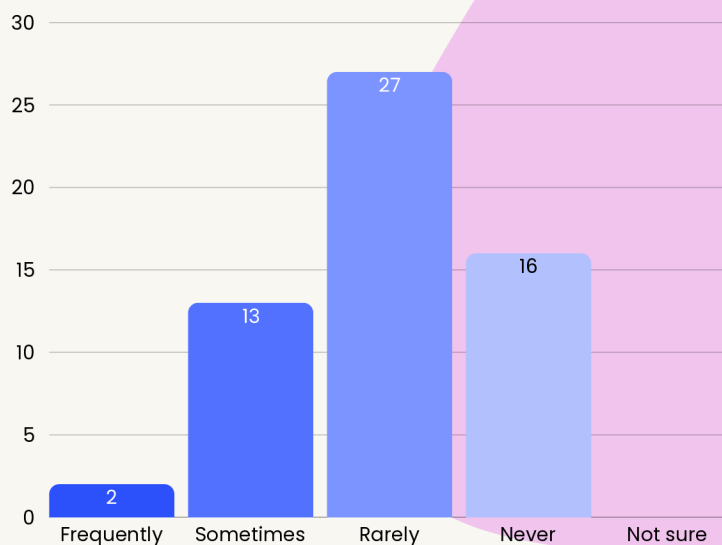
Do you feel confident identifying gender stereotypes or biases in children's play or interactions?



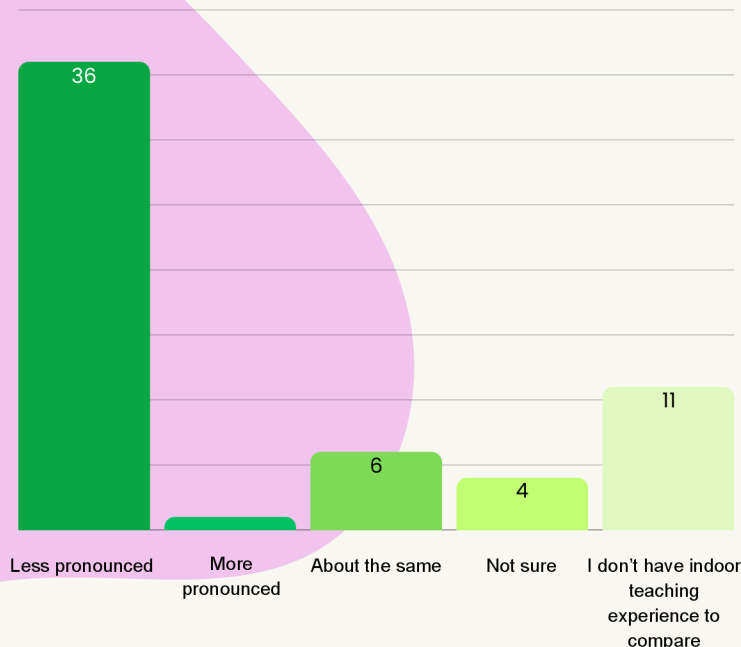
Over 40 educators report feeling somewhat confident identifying gender stereotypes in children's interactions.

How often do you actively intervene when you notice gendered behavior that might limit a child's play or participation?

Most educators either always or often intervene when noticing gendered behaviour playing out and limiting a child's free play, or participation in activities carried out at the school.



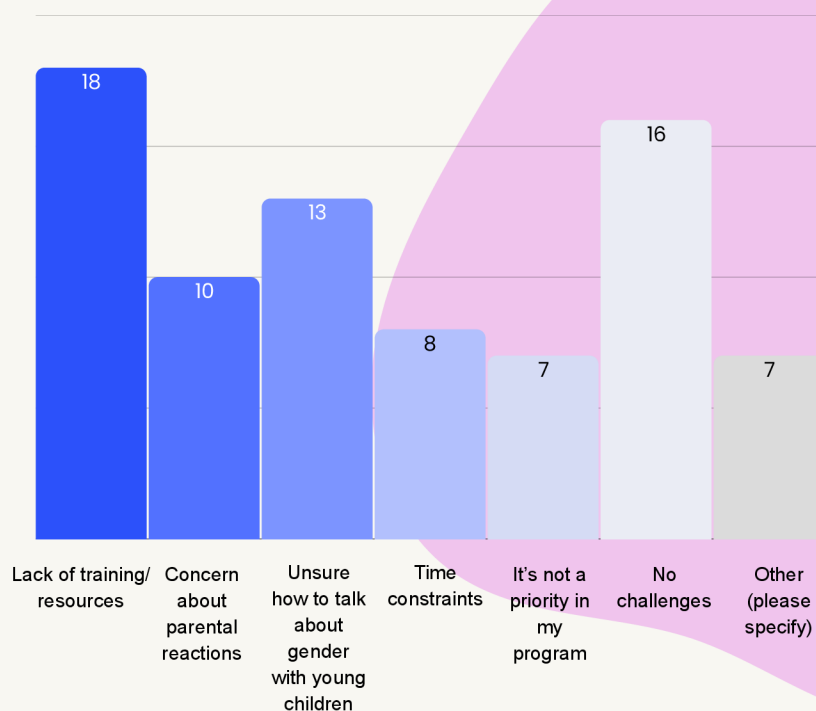
Do you think gender stereotypes are less pronounced, more pronounced, or about the same in outdoor learning compared to other school contexts?



There seems to be a general consensus among forest school educators around gender stereotypes being less pronounced in outdoor learning when compared to other school contexts. However, it's important to highlight that around 10 out of the 58 educators surveyed don't have indoor teaching experience to compare.

What challenges, if any, do you face in addressing gender dynamics in your settings? (select all that apply)

Between 15 and 20 of the educators surveyed state lack of training and resources as a challenge to address gender dynamics in their teaching settings, followed by a feeling of being unsure of how to talk about gender with younger children, and a concern about parental reactions. Over 15 educators report facing no challenges in the matter.



Besides the multiple-choice required questions mentioned above, the form included two optional open-ended questions. Below are detailed the main findings and tendencies spotted throughout the answers provided by the educators.

Optional question 1: Can you share an example of a time you successfully addressed or navigated a gender dynamic in your group?

When describing examples of how they navigated gender dynamics in a group setting, educators elaborated on stereotypes encountered in the language shared by the children, namely concerning physical abilities and differences in activity engagement (i.e. games for girls/boys, inclusion/exclusion binaries in role playing).

One answer, from the Italian survey reads:

"They (the children) often talked about physical characteristics, such as short hair, which "is for boys". They found it interesting when we started giving examples of girls, children or women we know who have short hair, and they concluded with "ah yes, that's true". It was more difficult when we talked about colours such as pink or clothes in general, but it was nice to emphasise to them that colours are just colours and do not determine who is male and who is female. But these are difficult concepts to dismantle."

Another answer from the same survey builds on this stereotype concerning long/short hair:

"I remember when someone called a boy with long hair a girl, it was he who told others that he was a boy. We talked about different hairstyles, what it meant for them to be male or female or..."

In terms of gender performativity, it is interesting to see how ingrained some rigid notions concerning attire seem to be present, with educators revealing having heard children in their schools making comments on certain clothing items belonging to only a specific group:

"We were chatting about clothes and a boy said that only girls wear skirts, and I thought, do you think only girls wear skirts? He said, yes, I'm a boy and I don't wear them. Don't you like them? He said no, they're for girls, only girls wear them. Before I could ask another question, a girl (usually very quiet) intervened and said: I'm a girl and I don't wear skirts, I don't like them, they disgust me. He remained silent, thinking. I asked him to explain his thoughts, and he told me that not all girls like skirts. I added that not all boys necessarily like only trousers."

It is, however, important to highlight cultural dimensions and intersectional nuances when analysing these answers. As Sara Salih mentions: "one's gender is performatively constituted in the same way that one's choice of clothes is curtailed, perhaps even predetermined, by the society, context, economy, etc. within which one is situated." (Salih)

Additionally, educators refer back to instances where stereotypes around physical abilities were present: "As for strength, one child once said (in response to a boys versus girls challenge), 'Well, we'll win because boys are stronger.'" Another answer reads: "Touch football game. The boys wanted to play with boys of the same age because they considered themselves stronger and faster and therefore didn't want to play with girls or younger children."

In relation to interventional approaches, the methods mostly present for navigating these gender dynamics seem to be curious inquiring and the use of examples to open children to alternative realities and worldviews. One educator states: "I approached him and asked" why he thought that, another mentions that "With examples and discussion, we were able to reach a conclusion."

Optional question 2: What kind of support or resources would help you feel more confident in promoting gender equity in your outdoor education practice?

Mostly, educators who answered this question highlighted the need for appropriate resources in the form of training and media material, such as books, as well as peer2peer interchanges:

"I would like to train and reflect on this topic together with other educators, exchanging experiences and points of view, materials, food for thought, strategies to use with families, and perhaps dedicated pedagogical supervision courses where we can observe and then reflect on what we have seen."

"Resources for identifying gender dynamics when they occur (what they are, how to tell if they are gender-related, etc.) and knowing how to deal with them in the moment (talking about them openly, as a group or individually, role-playing, etc.)."

Interestingly, an educator from Finland comments on how conducting the work in a non-gendered language may smoothen the process of promoting gender equity in nature-based educational settings:

"In the Finnish language, we don't have gender related pronouns for she/he or his/her...we only have one pronoun "hän" for all the genders – that helps a lot with gender neutrality! It also allows for the gender division in speech to never be limited to just two genders. "Hän" is suitable for all genders, and it doesn't define gender at all."

Discussion

In short, the answers from both multiple choice and open-ended questions tend to reflect an eagerness on the educators' part to develop specific resources in the shape of training opportunities, or courses dedicated solely to the topic of gender dynamics in nature-based education, thus suggesting there may still be not enough literature on the field across the countries examined.

Yet, Finland appears to be an exception to this, with two answers from educators based in the country revealing their confidence on navigating gender dynamics stems from appropriate training on the topic.

Lastly, the commitment to dismantling potentially harmful gender stereotypes is apparent, considering the number of educators confirming they intervene when observing gender roles playing out and inhibiting a child's participation in free play, or engagement with other kids in the group.



06 CONCLUSION



CONCLUSION

As part of the Erasmus+ project REGEN - RE-imagining Gender in Education in Nature, this study revealed that children at forest school kindergartens engage in a complex range of behaviours that both affirm and disrupt traditional gender norms. However, the observations consistently underscored the unique potential of the outdoor environment to serve as a canvas for more fluid self-expression, one that is less pre-defined by the rigid social structures often encountered elsewhere.

The study acknowledges that the persistence of gendered stereotypes, often originating beyond the school gate, presents a significant challenge. Yet, it is within the unstructured, open-ended nature of forest pedagogy that a distinct opportunity emerges. The natural world, with its inherent diversity and absence of manufactured rules, appears to passively encourage children to explore beyond conventional boundaries, including those of gender. This suggests that forest schools are not just another educational setting, but can function as a vital counterbalance to contexts with more rigid social norms.

To fully nurture this potential, the development of specific training and resources remains crucial to support educators in identifying and gently challenging gender-related barriers. The practical guidelines created from this study are a step towards empowering educators to become stewards of this more equitable space. Furthermore, the interchange of practices and knowledge should be actively expanded beyond a specific geographical region to encompass diverse national and cultural perspectives.

By doing so, the forest school community can strengthen its role in gradually dismantling oppressive gender binaries. This collaborative effort supports the progression towards an educational future where the land is consciously cultivated as a place of discovery and acceptance, allowing every child to explore who they are in an atmosphere of greater freedom and safety.

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RE-imagining Gender in Education in Nature



REGEN

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