

Research Report

ON DEMOCRATIC EDUCATION IN NATURE



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Abstract: This document is a research report, that summarises the findings of the research activities that countries of the consortium have undertaken in order to systematise, analyse and divulge democratic education in nature in European schools.



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1. INTRODUCTION

This research has been created in the framework of the DEN project, with the objective of realising a study on the nowadays presence of democratic education in nature in Europe, and systematising a pedagogy that bridges both democratic education and education in nature.

The research indeed starts from the consideration of the following gaps in both of the above pedagogical approaches:

- Democratic schools do not take full advantage of the benefits of the natural setting in children's development. Hundreds of studies suggest that experiences of nature are fundamental for a healthy physiological and psychological development, to boost learning and environmental stewardship.
- Schools in nature are mostly seen only suitable for kindergarten age, using the "new" natural environment only from 3 to 6 years old. After that age, children enter a traditional school system, where learning is hardly ever outdoors.

The research started from the understanding that there is a great benefit of combining the two approaches, as it would allow children of primary schools in particular to benefit from contact with nature through a democratic education system based on intrinsic motivation and that works harmoniously with education in nature.

In order to achieve this objective, the research aims at:

- Investigating features, benefits & implications of democratic education in nature, with particular attention to the three countries used as case study: Italy, Belgium and Spain.
- Raising awareness and divulging what democratic education in nature is (history, presence, different approaches in Europe, their characteristics, potentialities, limits).
- Identifying what are the key competences already acquired among democratic education in nature school staff, and those that need to be improved in particular in terms of teacher skills development. The training needs will be the basis for a Workshop that will be organised in the framework of the same DEN project.

The following sections will start with an overview of the DEN project, followed by a theoretical and a methodological framework. Subsequently, the document will present the main outcomes of every research method deployed, to arrive at a final joint analysis.

2. OVERVIEW OF THE PROJECT DEN

DEN (Democratic Education in Nature) is a European project funded by the Erasmus+ Programme (Key Action 2 - Cooperation for Innovation and Exchange of Good Practices). The duration of the project is of 15 months, from 01/04/2022 to 31/06/2023.

Responding to the needs of offering innovative pedagogical experiences promoting children's environmental stewardship, active citizenship and promotion of inner motivation and talents, the project has the ambition to systematise and disseminate a new developing approach that bridges Nature Pedagogy with Democratic Education. Having the partners of the project a long-term experience in this domain, they promoted a research on this approach and its application, a series of workshops and guidelines for schools.

DEN is implemented by two Democratic Schools in Nature: Albero della Tuscia (Italy) and Playa Escuela (Spain) and by an European Education Network, QUEST (Belgium).

The DEN project has therefore the General Objective (GO) of putting forward a new developing approach that bridges Nature Pedagogy with Democratic Education (DEN).

The GO is supported by the following Specific Objectives (SOs):

SO1: Promoting professionalisation of organisations already practising DEN

SO2: Creating an exchange of competencies of European school/organisations interested in improving their competences on DEN

SO3: Providing a systematisation of the DEN pedagogical approach

SO4: Promoting DEN in traditional schools and organisations not familiar with these concepts yet

SO5: Fostering change in education policy development

In order to achieve this objective, the project DEN is divided into three main activities:

-A1 Research

-A2 Workshop

-A3 Guidelines

This Research is therefore the first fundamental step of the project to analyse the status of affairs in the European Union regarding Democratic Education in Nature.

3. THE THEORETICAL AND METHODOLOGICAL FRAMEWORK

3.1. Objective of the research

The objective of this study was to analyse the current status and development of Democratic Education in Nature in Europe with the threefold objective of:

- Systematise nature democratic education into a comprehensive approach.
- Investigate features, benefits and implications of Democratic Education in Nature in Europe.
- Look at possible gaps, challenges and needs that will be then elaborated in the workshop, the subsequent activity of the DEN project.

The first and second objective were driven by the interest in filling a gap in the literature by providing educational professionals, teachers and academics with an up to date description of the phenomenon of Democratic Education in its multidimensional aspects.

As for the third objective, it was triggered by the willingness to understand what are the particular challenges for teachers and other actors involved in Democratic Education in Nature, in order to provide meaningful solutions. Thanks to the findings of this research, indeed, the partners of the DEN project have designed a cycle of four workshops, that will be spread publicly, and will also produce specific guidelines that will target national and european educational stakeholders as well as policymakers, in order to highlight the importance of diffusion of Democratic Education in Nature and recommending actions in this sense.

3.2. The research process and methods

Positionality

Before getting into details of the different methods, it is important to say a few words about the positionality of the researcher.

The typology of subjects and research touching the educational, social and political domain, requires to critically recognize the influence that the author(s) could have on the outcome of the research itself, so as to ensure that their own biases are accounted for.

It is therefore important to highlight that the partnership that put forward the research is composed by three organisations supporting and practising Democratic Education in Nature. As such, there is a personal attachment to the object of study and a clear alignment with the pedagogical approach under study, that can have an influence on how the research has been conducted, its outcomes and results (see Rowe, 2014).

Taking full awareness of the lens through which the researchers have analysed the phenomenon of Democratic Education in Nature, they have however tried to include a vast array of voices coming from different approaches, and to include critiques, pitfalls and complexities of the Democratic Education philosophy, notwithstanding the strongest criticisms.

Research Method

The research is based on qualitative research methods in order to reach an in-depth understanding of Democratic Education as a social phenomenon. Using a process of collecting, analysing, and interpreting mostly non-numerical data the goal is to make sense of democratic education in its pluridimensional and contextualised aspects, therefore interpreting the phenomena in terms of the meanings people assign to them, and putting the focus on a descriptive and observational level. (see *Denzin and Lincoln, 1994; Aspers and Corte, 2019*)

The qualitative research approach has been based on three main research methods:

- Literature review
- Interviews (in the form of a questionnaire).
- Focus group

Literature review

The first step in this research has been the evaluation of the available literature on Democratic Education.

This has been done not only with the objective of systematising, collecting and synthesising previous research (Baumeister & Leary, 1997; Tranfield, Denyer, & Smart, 2003) but above all to provide a firm foundation for advancing knowledge on Democratic Education, through comparing and facilitating theory development. Indeed the literature review, which we can find in the next chapter, has the following objectives:

- to survey and synthesise the literature in the educational science, psychology science and social science
- to critically analyse the information gathered by identifying gaps in current knowledge; by showing eventual limitations and controversies, and by formulating areas for further research

By integrating findings and perspectives from many research studies (via a multidisciplinary approach that surveyed education science, political science, social science and psychology) the literature review had brought an overview of the present knowledge produced on Democratic Education in nature in Europe, and provided a solid ground to the other research methods (focus groups, interviews and case study) that formed the empirical part of this study.

Questionnaire

Over the course of the preliminary phases of the research, we realised that the literature review (desk research) was not enough to grasp the complexity of the study of Democratic Education in Nature. Indeed, the lack of available written resources on this topic, and the novelty of the subject, brought the partners to decide to include interviews in the form of "questionnaires" to be sent to both democratic and "nature" schools, in order to get first-hand information.

A questionnaire has been considered an appropriate method in order to reach a good amount of schools in the short period of the research. Interviews using written questionnaires are indeed widely used in research on education because they are a powerful means of both obtaining information and gaining insights (see for instance Hannan, 2007). The questionnaire has also been chosen in order to reduce the cost of data handling, ensure consistency in the collection and analysis of the data and make the comparing exercise feasible.

Three different questionnaires with targeted questions had been produced: one for democratic schools, one for nature schools and one for democratic schools in nature.

The questionnaires were composed of open-ended questions, where respondents provided a response in their own words. Particular care has been put in asking clear and specific questions.

The scope was initially limited to the countries of the partnership (three countries), whereas a second round of contacts included also democratic schools and schools in nature in other European countries.

Before analysing the data, we also considered every country's specificity, exploring and mapping exhaustively the entire educational context that was subject of analysis in order to have a clear comparative reference framework. An overview of each country's analysis is provided in chapter five before introducing the empirical data.

Focus Group

After having performed a literature review, mapped every country specific educational context, and having proceeded to the questionnaire, the results of the research have been tested during one focus group discussion. Eight experts of Democratic Education in Nature were therefore gathered in order to discuss the outcome of the questionnaires and to listen to their opinion regarding crucial topics that emerged in the previous research phases.

Focus groups are used to informally gather information from a small group of individuals who have a common interest in a particular subject - in this case Democratic Education in schools. The discussion in the focus group allowed to:

- Provide verification in interpreting data that might otherwise only be conjecture
- Provide alternative explanations and interpretation of findings that may not be obtainable using traditional quantitative methods (Merton and Kendall 1946)

During the focus group the moderator conducted a collective interview of participants and created open lines of communication across individuals, as the objective was to rely on dynamic interaction between participants to yield data that would be impossible to gather via other approaches.

The process of the focus group was looking more at a “responsive interviewing” model, as proposed by Rubin and Rubin (2011), looking more at how people perceive an occurrence or object and, most importantly, “the meaning they attribute to it”, rather than to use a mere positivistic approach of finding the truth or a definitive answer.

Given the complementarity of these methods, the focus group helped in gathering a richer understanding of their perspectives of the experts invited.

4. CONCEPTUALISING DEMOCRATIC EDUCATION IN NATURE

In this section the main theoretical framework will be presented, providing the definition, history and conceptualisation of the Democratic Education in Nature approach.

The following first part of the chapter is dedicated to Democratic Education and it is taken from the chapter on “Democratic Education” included in the Research “Democratic Education in School” (Paone, forthcoming), mostly inspired by the work of categorisation and interpretation by Gabriel Groiss.

As for the second part of the chapter, it is devoted to the study of Nature Education, which will lead the way to the final conceptualisation of Democratic Education in Nature.

4.1 DEMOCRATIC EDUCATION

An ontological difference

As Biesta (2006) pointed out, the central question of all pedagogies should be “what it means to be human”, and only after having answered this question we can start the work of educating.

Many educational practices are therefore based upon philosophical ideas about what it means to be human.

What makes Democratic Education different from any other kind of educational approach - and therefore also against the tide - should be understood therefore in the different answer that Democratic Education gives to the question “what it means to be human”.

Answering to this question, we can see there is quite a difference between “Progressive Education”, and Democratic Education. Progressive Education is understood as comprehensively innovative approaches promoted and tested across the world throughout the 20th century by experimental or laboratory schools and other establishments based on progressivist philosophies, the “new education” principles, and critical pedagogies.

Such practices were encouraged and implemented by a long list of visionaries, reformers, and proponents of “active school,” “experiential learning,” “child-centred pedagogy,” collective upbringing and peer cooperation, etc. (Bowers, 1967; Darling and Nordenbo, 2003; Gribble, 1998). Intrinsic to them all, their variety notwithstanding, was a criticism of the traditional, conventional pedagogies prevalent in mass schooling (see Gawlicz and Starnawski, 2020).

To understand the vision of progressive education towards the question “what it means to be human”, we can see what the Belgian progressive politician and philosopher John Pitseys (2014) reckoned about the use of democracy in school. He raises an apparent paradox arguing that the school is not a democratic place and is not, in principle, destined to be. In fact, he argues that schools bring together individuals who are supposed to know, teachers, and other individuals who do not yet know, the pupils.

This knowledge concerns academic and technical skills. But it also concerns values that are supposed to prescribe what is civic or moral to do. He argues that the existence of inequalities in knowledge or skills between individuals is not enough to justify different political status: democracy is distinguished from other political systems by the fact that every citizen has equal rights and freedoms, regardless of their competence or personal morality.

However, this asymmetry is special since education aims by its very definition to lead the student out of the state of a minor. The ideals of freedom and equality presuppose a mature, emancipated identity, the realisation of which presupposes precisely education: the end of compulsory education is supposed to correspond to the acquisition of a form of intellectual majority for the pupil.

Pitseys argues that it is in the name of its educational mission that the school is conceived as a home of discipline and a domestic system in its own right. Its democratic function is through the quality of the education provided, and by the social and civic competence of the teacher.

That democracy should be taught but not practised in schools is based on the a priori assumption that democracy only takes place between citizens, and that students are not yet full citizens.

What is really important here, is that Pitseys clearly puts forward the basic assumption of all progressive and non progressive education. So, if he were to answer Biesta's question "what it means to be human" and therefore "what it means to be children" in progressive education, Pitseys could say that children are half citizens, not yet adults, and therefore they are not yet granted full rights, and they are waiting to become a whole person.

On the contrary, many people that adopt Democratic Education practices, approach the perspective of young human beings, understanding that they come into the world as unique individuals through responsible responses to the external environment. Children are therefore considered as competent beings equipped with the curiosity and the motivation to be able to be themselves, finding who they are and pursuing their growth and happiness. In this sense, Democratic Education in its most common interpretations, gives the same basic rights, of participation with voice and vote, to children than to adults, provided that children can sustain the responsibility connected with the corresponding right, according to their capacity.

We can see therefore that there is an ontological difference here: the general understanding of most educational approaches sees the role of adults as the one who decides over the children continuously in almost every matter until an established age, whereas in Democratic Education children are generally respected and enforced from early ages on in their (gradual) capacity and right of responsible decision making and self-organised acting, and adults assist as supporters, helpers, mentors, that are there to accompany the child in a journey of self-discovery, but with the same basic value within the community.

Finally, it has been also pointed out by some scholars (Suissa, 2006 among others) that the concept of human nature exposed by the proponents of Democratic Education is one where human nature is predominantly oriented to social cooperation, and can therefore be understood as "benevolent". There is, indeed, an educational belief that children have in some sense, not only an innate capacity for curiosity and motivation, but also for "altruism", as social bonds of care can be seen as one of the central behavioral characteristics that made a difference for the outstanding evolutionary success of our species, our human nature (...not ignoring at the same time the existence of other mechanisms of our social behavioral range like competition, rivalry, territorialism or aggression).

Greenberg and Gray in this context would say that children are extremely good in (and therefore do not need to be taught) all those behaviors they will need as adults, such as communication skills, creativity, imagination, alertness, curiosity, thoughtfulness, responsibility, and judgment. What children lack is experience, which can be gained if adults guide students in open ways in socially safe spaces.

Practitioners and authors promoting Democratic Education therefore believe that if trusted and given full support as well as the tools to express who they are in healthy, supportive and rich environments, children can reveal their full potential.

It is therefore the environmental factors that determine the extent to which children will be able to reveal themselves, or on the contrary will be coerced and forged into something they are not. This constructivist aspect explains the central role that Democratic Education thinkers attribute in the processes of education and socialisation of children within democratic environments, where they are respected in their most fundamental human rights, accompanying them in the development of their personal and social "humanistic" potential ; and not to raise them experiencing systematically on a daily basis patterns of vertical power structures, where they end up adapting behaviors of domination out of power positions, they learn they have to seek and compete for (or surrender and accept their low status in the hierarchy, "kicking down" to those even below them...!), that at the end responds to the logic of social Darwinism.

In this sense, we can easily understand that the objective of Democratic Education is to allow children to live a happy and meaningful life (see Gray, 2020; Hannam, 2020) in order to establish a generally positive confidence and disposition, and to accompany children, not in a directive way from an superior power position, but in an environment where democratic values and practice prevail, and they are allowed to enjoy their human right of self-determination and self-direction, since, as Neill pointed out, "the function of a child is to live his own life--not the life that his anxious parents think he should live, not a life according to the purpose of an educator who thinks he knows best" (as quoted in Bull, 1970).

Children are here clearly not considered empty vessels to be filled with learning, but they have all the curiosity and motivation to follow their own path and are duly accompanied in their self-discovery journey.

So, Democratic Education is ontologically opposed to "Conventional Schools", if we consider them as traditional, curriculum centred, strongly directed, focused on academic studying and using unified evaluation systems. But, it is also very different from progressive education.

In progressive education "student-centred learning" and "project-based learning" are partly implied, becoming the curriculum also less about encyclopaedic studying in favour of interdisciplinary competences, and evaluation techniques also becoming more personal. However, even reducing academic pressure, there is still directed education, with a curriculum to be followed and fulfilled.

Moreover, in these approaches, adults do not take a step back from their central protagonism position and still hold all the decisional power.

There are also other aspects that in most of the cases distinguish progressive education from Democratic Education. For instance: generalised segregation by age, not "unlimited" permission to play freely, and no possibility to move freely through the different spaces. The decisive criteria for the mentioned paradigm shift to Democratic Education is the implementation of a real Self-Directed Learning, where the adult steps back from the central individual power position, in favour of establishing a free and democratic community.

The two pillars of Democratic Education

Over the last years, many different meetings, conferences, publications of the Democratic Education movement took place where experts working in this field, academics and independent researchers gathered to discuss the theoretical and practical basis of Democratic Education.

In particular, a specific international working group was initiated out of the EUDEC (European Democratic Education Community) to cooperate on the theory of Democratic Education, at the same time as several EUDEC and IDEC (International Democratic Education Conference) conferences were also partly focused on defining the essence of Democratic Education. It is fair to say that this community of experts and academics agrees on two basic principles of Democratic Education, accepted widely as the foundation of this approach: SELF DETERMINATION and DEMOCRATIC COMMUNITY PROCESSES.

These two basic concepts are also the central ideas that are described in related literature, and have deep possibilities of interpretation of the important meanings and facets they carry within themselves and the complexity when setting them into relationship with each other. They will now be explained in more detail.

SELF DETERMINATION:

Self-determination in the context of Democratic Education means a process where children take primary charge of their choices, including those connected with planning, continuing and evaluating their learning experiences. This freedom of deciding about their lives has never to be mistaken by licence (see Neill, 1978).

Self-determination in this context could be analysed on three different angles: self-determination as human right, self-determination as central factor for mental health, and self-determination and its central importance for learning processes.

Human rights:

We could say that the right to free self-determination is the central spirit of human rights. The capacity to develop a reflective consciousness and the free will resulting from it, can be seen as the central difference to other animals, and even from a spiritual perspective the free will is what makes us human, carrying this "divine" potential within.

This natural right was suppressed over long periods of history and it has been conquered quite recently in history, by still a small percentage of the global population. Even though the basic human right of self-determination has been widely accepted in most modern democracies, it has not reached childhood yet. Children are mostly still handled as objects of our "education" with no voice and no vote, even in very direct issues of their daily lives. It is sufficient to remember that children's fundamental right to participate in events concerning their own lives has relatively recently been recognised, in the Convention on the Rights of the Child (1989). Children's right to be heard is legally extended to all actions and decisions which affect children's lives: within their family, their school, their community and at national policy levels.

Few years after the publication of the Convention, Roger Hart (1992) wrote a paper entitled "Children's Participation: from Tokenism to Citizenship", published by the UNICEF Innocenti Research Centre. In this piece, the author adjusted the Ladder of Participation, a concept developed by Sherry Arenstein referring to involvement of citizens in decision making (1969) to include children. The ladder explains the various degrees of respecting the rights to participation in projects, ranging from manipulation instead of real participation at the bottom of the ladder to child- initiated, shared decisions with adults at the top (see image).

Hart defines participation - a fundamental right of citizenship - as "The process of sharing decisions which affect one's life and the life of the community in which one lives" (Hart, 1992). The respect of children rights, according to Hart, would guarantee that they will become engaged citizens able to value their and others rights.

However, the pessimistic scenario emerging by Hart's analysis, has not greatly improved in the last 30 years. We can see that in most matters that concern their life, children are not involved, and therefore their basic right is not respected.

Limitation of human rights to children and youngsters has been considered by many "adultism". Adultism is defined by scholars (Bell, 1995; Bonnardel, Y. (2015); Fletcher, 2021; Gong and Wright, 2007) as the behaviours and attitudes based on the assumptions that adults are better than young people, and entitled to act upon young people without their agreement. Such scholars consider that we live in a society where there is structural adultism, and schools are created in order to serve an adult-centred society that overlooks the rights of the children. According to this stream of thought, the formal and informal systems, processes, organisation, and outcomes of schools ensure, reinforce, sustain, or transfer bias towards adults.

Engaged in respecting children rights and fighting adultism in its multidimensional aspects, Democratic Education sees self-determination of children as a fundamental prerequisite for democratic societies. This aspect of self-determination (personal freedom/responsibility) is therefore strongly connected with the second principle of Democratic Education which are the democratic community processes.

Mental and physical health:

Psychological findings (La Guardia, J. 2017, Ntoumanis N, Ng JYY, Prestwich A et al, 2021; Ryan, R. M. & Deci, E. L., 2017) show that self-determination, or the so-called internal or external locus of control, is one of the most important factors for mental health.

Motivation – energy directed at a goal – plays a big role in our lifestyle choices and in our ability to make sustained changes as needed to maintain our health. However, researchers have found through many studies that when people are more autonomously motivated, they are more likely to have good mental health. On the contrary, passively relying on external motivations to achieve something in life can be extremely harmful. Ryan and Deci (2017) have suggested that the tendency to be either proactive or passive is largely influenced by the social conditions in which we are raised. In a former publication, the same authors (Deci and Ryan, 1985) describe that autonomous orientation represents the highest degree of development as it guarantees the possibility to adjust one's behaviour in harmony with the surrounding environment and to achieve good satisfaction in the interpersonal relationships, as well as a sense of self-realisation.

According to self-determination theory, the pursuit of autonomous goals will improve well-being because these goals are in line with one's true self, concerns, and values and therefore, satisfy the basic psychological needs.

Conversely, the pursuit of controlled goals will restrain well-being because these goals do not accurately reflect the interests and values of one's deeper self and are thus unlikely to satisfy basic psychological needs (Gillet et al., 2012). Likewise, Miquelon and Vallerand (2008) show that autonomous motivation is also extremely important for health also when people are facing challenges, because it enables them to be protected against stressful events, as it provides them with sufficient psychological resources stemming from more adaptive forms of coping. (Migliorini, Cardinali & Rania, 2019).

Literature also underlines that being autonomous promotes internalisation of values and awareness of intrapersonal and interpersonal dynamics and of their relation to behaviour and health, in line with the psychosocial approach (Williams and Deci, 1996).

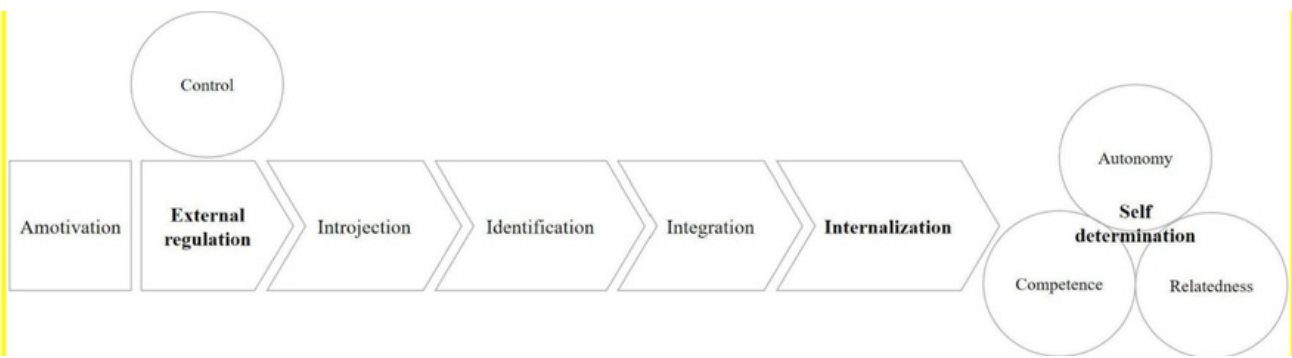


Figure 1 SDL process of internalisation. Source: Migliorini, Cardinali & Rania, 2019

Of course, this is not black or white. Rather, self-determination could be imagined as a continuum at the extremes of which we find intrinsic motivation and autonomous regulation on the one hand, and the external determination of behaviour and motivation on the other (see Figure 1).

Between the two poles, we can imagine a process of internalisation of causality, through which the individual makes his own reasons for the behaviour that others had initially presented to them. There are therefore purely external forms of regulation (punishment and rewards) and more internalised extrinsic regulation forms, such as introjection -- where behaviours are guided by the dynamics of seeking approval -- and identification -- in which values are consciously accepted and transformed into elements of the self (Grolnick et al., 1991; Vallerand and Bissonette, 1992; Deci et al., 1994).

Finally, the integration process organises and makes congruent different identifications, turning the experience of the self as a possible unit.

Having a plethora of psychology studies analysed the clear impact that self-determination has on mental health, we need to understand the fundamental role of the school in either fostering or thwarting children's well-being and personal growth by promoting or inhibiting self-determination.

For example Maria Montessori has already formulated that a every young individual has its own construction plan which it wants to develop in the course of its life. If it is disturbed in this process, e.g. by the intervention or instruction of adults, the child moves further and further away from it. Montessori calls these interferences "deviations" as something has pulled the child off their intended path of development which they would naturally be drawn to follow, and if consistent and repeated, this can result in physical or psychological causes of illness.

In conventional schooling, self-determination, and therefore the internal locus of control, is often suppressed or reduced to a minimum, approaching the children with a general projection and expectation of what they should become, transmitting to them that the way they are, they are insufficient, and depending on the approval of an external authority, using systematically reward and punishment structures to condition them into dependency of external direction and obedience. This practice results in great harm, as such coercive practices are detrimental to children's fundamental self-esteem, and therefore their general wellbeing.

This perspective on mental health is one of the deeper reasons why in Democratic Education the focus lies first on the self-organised development of basic personal competences and socio-emotional skills, mainly through self-regulation, instead on impulsing externally intellectual skills and academic achievements. Democratic Education allows children to find their inner motivation, and also accompany children to build up their personal and social skills, in order to be able to know themselves and make the choices that are in line with their own talents and preferences, out of an emotional balance.

However, we have come to expect high degrees of authority from administrators, teachers, parents, school boards, even government, yet only a few schools have embraced the notion of total and absolute freedom of choice for the students themselves. The view that a child has the mental and emotional capacities to make these kinds of decisions is a difficult one to market (Peramas, 2007).

Self-determination not only is a key factor in mental health, but it is also a fundamental factor for physical health. The stream of studies on the benefit of nature and outdoor learning are clear in pointing out that it is crucial for children to be able to move freely, accompanying their learning journey with movement, and not being anchored to a desk for eight hours a day.

Self-determination, and therefore freedom for children to move in space and decide autonomously their posture, space and movements, has therefore also a great impact on the physical wellbeing of children.

Learning processes:

From Rousseau to Spencer, passing by Dewey, Thoreau and Piaget, all of them considered that learning should be natural. Huge works and reflections have been spent trying to make learning in the classroom match children's spontaneity outside of it. In Egan's interpretation, the "holy grail of progressivism" has been to discover methods of instruction derived from and modelled on children's effortless learning (Egan, 2002, p.38).

Both psychology and education have tried to work on this objective (Peramas, 2007) . On the contrary, the answer that Democratic Education thinkers would give watching those efforts, is that there is no better way to learn than allow children to take control of their learning.

In the last decades, a variety of neurobiological researches confirmed the underlying hypothesis of Democratic Education tradition practised over more than 100 years: the emotional connection to the (learning) activity, driven by self-determination and so by intrinsic motivation, is substantial on a physiological level to activate the needed neuro-transmitters and isolators, and therefore to promote meaningful long-term learning processes.

The belief that children learn best with freedom from coercion was promoted already in the New Ideals in Education Conferences (1914-37) that created the building blocks of the child-centred approaches in modern education.

Self-determination as a learning process is called Self Directed Education (SDE)(or sometimes also called autonomous learning, self-organised or self-managed education). Self Directed Education is education that derives from the self-chosen activities and life experiences of the learner; and refers to the deliberate practice in which young people are fully free to educate themselves in their own chosen ways rather than by means of a forced curriculum (Alliance for Self-Directed Education, 2021; Gray, 2017).

Self Directed Education sees children (and humans in general) as biologically and intrinsically motivated to learn the lessons of the culture in which they live (for more information see De Beer, J. Mentz E. (2016) and Gray, P (2009).

Self Directed Education works with, rather than against, these natural drivers. Children and young people are supported to do what they are interested in, to socialise and play with children of different ages as they choose and to learn through immersion in their communities and with the tools of their culture.

Self-directed learning is anchored in the belief that the most efficient, long-lasting, and profound learning takes place when started and pursued by the learner and that all people are creative if they are allowed to develop their unique talents.

Studies have shown that when people determine for themselves what to learn, they retain the subject significantly better than if someone else determines what they should learn. This is what Deci and Ryan (2002) called the "The paradox of achievement: The harder you push, the worse it gets".

External motivation is only necessary when someone else determines what the student should learn. In conventional education teachers tend to work over extrinsic motivation, using a reward and punishment systems.

This leads to the so-called "bulimic learning" where academic content is taken in under pressure (often developing even an emotional rejection to "learning" and culture) and "spitted" out only for testing purposes, and don't stay usable on a long term, as studies of re-testing have confirmed even in surprisingly short periods of time and also looking at good first testing results.

Bulimic learning creates an environment where students are forced to memorise information with little attention paid to the long-term retention of knowledge and skills necessary to competently practise these skills (Bensley RJ, Ellsworth T., 1992; Nelson CE., 2010) . The students' physical and mental health is compromised by the pressure inherent to bulimic learning, with educational outcomes typified by student's laments that they are unprepared and "know nothing". As an educational practice, bulimic learning is as unhealthy as its namesake is for the body.

These factors determine the choices of democratic schools to focus on internal motivation rather than external. When the students determine their own curriculum, external motivation is not necessary. In Democratic Education, external motivation is therefore substituted by internal motivation.

When talking about Self Directed Education, Democratic Education does not refer to permissive "no-rules" education like the so-called "laissez faire". Democratic Education requires a clear structure, with a set of co-decided rules and presence of the adults as guides for self-directed learning and for sparking curiosity and trigger the internal motivation in students. The degree of "self-direction" and autonomy then vary from a democratic school to another. But, in every school there is a balance between the individual freedom and the needs of others and the whole community.

There is a full array of examples from children from democratic schools to showcase how intrinsic motivation works. Some of these are for instance the accounts of how children learn in the Sudbury Valley school, that it is possible to find in the SVS website or the research put forward by Peter Gray on the alumni of Sudbury school (see for instance Gray, P. & Chanoff, D. 1986).

The switch from an external directed education to a self-determined represents a paradigm shift in education.

This shift does not entail only a change in the students. Indeed, having most of adults experienced an academic biography of directed and coercive education, often the application of Self Directed Education leads adults to question very much themselves and the social rules they constructed around education.

As we have not been educated in questioning the status quo or critical self-reflection, this process of mental "unschooling" or "unlearning", understanding the needed changes, and trust deeply in children's capacity of self-determination and self-organisation of their learning processes, is often a difficult task for many adults, pedagogist and teachers.

One of the typical examples of this is the difficulties that adults who grew up in a traditional school system (and therefore teachers and pedagogues) have understanding that free play is an ethological need of children for their healthy development.

Letting children and young people play is not therefore neglecting their learning, but allowing them to experience the world, develop intrinsic interests and competencies; learn how to make decisions, solve problems, exert self-control, follow rules, learn to regulate their emotions, learn to get along with others as equals and experience joy. Through all of these effects, play promotes mental health and therefore fosters learning (for more info see Gray P. 2011).

DEMOCRATIC COMMUNITY PROCESSES:

This second principle of Democratic Education is related to the social and interpersonal life in the school: in Democratic Education every person has a voice and vote, not just for his personal issues, but also for community decision making processes. The possibility for children to have a saying in the decisions about the school, has profound consequences on several levels, that will be explained below:

Community of equals:

Offering the opportunity to children and young to take part into the decision-making process in their school does not just have an impact on the structure of the community processes. It directly affects the way all school actors relate to each other, building trustful relationships.

In conventional education children grow up in hierarchical structures, and most of the time they do not have any choice than to obey an adult authority without being offered significant options to change their reality.

This asymmetry has been already portrayed showing the discourse of the Belgian progressive politician and philosopher Pitseys (2014) in the introduction. He indeed argues that the underlying foundation of school is the asymmetry between who knows and who does not know, and that it cannot be a democratic institution, because its target, the children, are not yet full citizens. Therefore, they cannot be considered equals. This asymmetrical setting, however, teaches children to be quite passive in accepting rules by a superior person that decides everything for them. In such a general practice, the underlying message sent to children is that they are insufficient and not trustable enough to make any decision, and depend on external approval (interconnection with self determination and mental health). This results in the long run in a lack of confidence in themselves and in others, into a deep dependency of external authorities and therefore to an incapacity to take part and be an active and independent mind.

On the contrary, in democratic education the trust in children is considered as a key element. Democratic education is based therefore on a community of equals, there is no hierarchy between teachers and students, only different roles. Children are seen as human beings that deserve the same respect, attention and care of adults - the same basic rights. In democratic schools, children are therefore offered the possibility to have a say in all matters that interest them, and in which they have the competences to decide about.

Democratic participation and values:

We saw before that a fundamental right of citizenship (connected therefore with the discussion on human rights), participation is defined as “The process of sharing decisions which affect one’s life and the life of the community in which one lives” (Hart, 1992).

According to Hart, we should not expect young people to suddenly become engaged citizens at the age of 16, 18 or 21, without having prior experience of what it means to use their voice, organise themselves and influence their lives. That means that an understanding of democratic participation and the confidence and competence to participate, can only be acquired gradually through practice, and this practice needs to be embedded in learning (for more info see Licht, Massini, Pateraki and Scimeca, 2019).

Historically, the discussion of education and democracy was first addressed by John Dewey, who considered that without an education that allows to understand both our freedom and our responsibility towards others, democracy can neither develop or endure, and therefore he believed that the aim of education should be oriented towards preparing young people to be full and active participants in all aspects of democratic life, among which the ability to think critically, the sense of efficiency and the desire to actively participate in political life.

This conception of education as an active agent to shape the politics already exists in some post structural writings about education (e.g., Ellsworth, 1989; Lather, 1991, Britzman, 2006; Biesta, 2006; 2010, to name only a few). This leads to what might be called an educational form of politics, or a political form of education in educational philosophy, and that is what we call Democratic Education. Although it does not yet exist as a general awareness of the importance and necessity of these understandings of education for the practice of “taking care of the future” in complex cosmopolitan times (Osberg, 2010), Democratic Education places at the core of its concerns the care for the future of our democracies.

These basic citizenship skills are fundamental for living in a democratic society. Already in 2008, the Council of Europe’s White Paper on intercultural dialogue noted that the competences which citizens need to acquire to participate effectively in a culture of democracy are not acquired automatically but need to be learned and practised, and education is the principal vehicle for this learning: preparing individuals for life as active democratic citizens, support learners in acquiring the competences which they require to participate effectively in democratic processes and intercultural dialogue.

Similarly, the Council of Europe's document "Competence for Democratic Culture" (2016) considered that an education system which equips people with such competences empowers students to become active participants in democratic processes and in intercultural dialogue, but it also endows learners with the ability to function as autonomous social agents capable of choosing and pursuing their own goals in life.

Despite the theory, as Derry Hannam noticed (2001) "there is still a worldwide political concern that many young people have little interest in or knowledge of their democratic systems of government, and their engagement in the local communities seems quite low.

Even those who have either interest or knowledge appear to have shaky confidence in either the capacity of their systems or the integrity of their politicians to work for beneficial change. Potentially it provides dangerously fertile soil for populism, xenophobia, racism, and nationalistic demagoguery. Powerful cases such as the "Fridays for future" however demonstrate that young generations still mobilise and care for public causes. It is evident from major investigations into citizenship education that successful education for democracy needs to be at least in part experiential.

Democratic structures and practices need to be modelled in the everyday lives of students in their classrooms and schools, and teachers need to be equipped with a set of competences to help teach pupils how to live together, as democratic citizens in diverse societies. In this sense, Member States still have to introduce more experiential aspects in the classrooms that allow students to practise democracy, as already remarked in the Council of Europe's document "Competence for Democratic Culture" (2016).

Democratic schools are giving possibilities to students to participate in the decision making. The degree of involvement and the organisation of the decision's procedures vary from one school to another. What is common is that children get trained to speak up, make an impact in the things that matter to them, and be able to argue and defend their thoughts, as well as listen to others and arrive at agreements.

This is why democratic schools are based on the socio-political belief that having full democratic rights in childhood is the best way to become an adult who is comfortable functioning within a democracy.

In this environment children not only get used to freedom but to responsibility at the same time. They learn from a very young age to be involved in common decision making and collaborate in solidarity through direct democratic participation. They learn to care for themselves and for others. They learn to speak up and to listen, and find solutions and agreements.

They learn that living together requires a whole range of tools and techniques to ensure equal rights and justice, and that these systems need to be revised and adapted continuously. Experiencing democracy is however not just about deciding together. It's about preserving integrity and dignity. About respect and empathy. About solidarity and cooperation. About individual and collective wealth and wellbeing.

This short description of the core features of Democratic Education might be not exhaustive to represent the variety and richness of this approach, but it could at least provide a general overview of the reasoning behind Democratic Education choices.

4.2 EDUCATION IN NATURE

Education in Nature, sometimes also called nature-based education, is defined as children's active learning in the natural world (Meier & Sisk-Hilton 2013). Education in Nature therefore sees nature as the main learning environment for children, and is implemented by schools in nature (i.e. forest or beach schools), and outdoors or environmental organisations.

Within the broader framework of Education in Nature we can recognise different approaches and tendencies that will be analysed below. First, this section will present the history of Education in Nature. Then it will dedicate some space to the analysis of the benefits of nature education. Moreover, it will focus on explaining the differences among several disciplines connected with Education in Nature: environmental education, outdoor learning, forest school, and self-directed learning in nature.

Finally, we will present what we consider Democratic Education in Nature is, and the benefits of this approach.

History

The pedagogical relationship between children and nature has a long history, remembering here that nature has been our evolutionary environment for millions of years, and where human children grew up most time of our history. In modern times, when Swedish preschool pioneers opened the first kindergartens and day-care institutions in the mid-1850s, they were inspired by Friedrich Fröbel (1782-1852) and his ideas about children and nature (Fröbel, 1887). As Knife (2013) pointed out, in northern Europe outdoor learning through exploration and play, nature studies and gardening were seen as important components, together with the idea that the child's encounter with the outdoors would instil a sense of responsibility toward living things. To this end, at the beginning of the 1900s, kindergarten teachers organized excursions for city children to forests and farmlands with the goal of strengthening their relationship with nature.

The first school in nature, or open air school, is considered to be the "Waldschule für kränkliche Kinder" (translated: forest school for sickly children) built in Germany in 1904, followed by similar schools opening in Belgium in 1904, Switzerland, Italy, England and France in 1907, America in 1908, Hungary in 1910, and Sweden in 1914.

They were designed to prevent and combat the widespread rise of tuberculosis that occurred in that period. The schools were built to provide open-air therapy so that fresh air, good ventilation and exposure to the outside would improve the children's health.

In this period, it is also important to remember the experience of the Spanish "Escuela Bosque" founded in 1914 in Barcelona. This pioneer school was set in a natural environment, using nature to promote the spirit of observation, care and reflection in students.

This school was understanding the classroom as a place for analysing and systematising the information collected in the natural environment, with an overall pedagogy that was following the respect for students' learning needs and their happiness (for more info please see Sensat,1929).

As a similar experience there is to mention the "Schule am Meer" (school by the sea) opening in 1924 in Juist, a German island, considered the first regular German open air school, which from grade 5 to grade 13 led to graduation, practicing "grassroots democracy" with a tendency to non-hierarchical structures where students and teachers were considered as of equal rights and duties.

This pioneer models were lost as a result of the two world wars, industrialization and migration that characterised the late 19th century, when children moved with their families from the countryside to cities (Hatje, 1999).

Education in Nature reappeared after the second world war, with the movement of Forest Kindergartens, first in the 70s in Denmark and in Germany, where it took up to 1992 to be recognised with a specific legal framework, and became increasingly popular from there on. Then after the 90s it started to spread strongly into other countries worldwide, even though since the last decade it was still perceived as a new concept by many people.

Slowly, it conquered other natural spaces than forests, especially coastal landscape like beaches, and started to address older children, being also applied to primary and most rarely to secondary schools.

In the last decade, a rise in the popularity of various forms of outdoor learning has been generated as one response to the concern about children's disconnection from nature. The growing concern that contemporary children have become disconnected from nature is an idea popularised in Richard Louv's book (2005) "Last Child in the Woods", in which he coined the term 'nature deficit disorder'.

Disconnection is powerfully illustrated by the shrinking distances from home that children are allowed to go unsupervised, what Matthews refers to as 'range' (Matthews, 1992). This range has been reduced by 90% since the 1970s (Moss, 2012). Indeed, surveys about children's changing relationship with nature (Natural England, 2009) show that children's access to natural environments is declining and unequal (Rice and Torquati, 2006), and that there is a loss of language of common nature words (Macfarlane & Morris, 2017) that leads to physical contact but also symbolic representation of nature being compromised for contemporary children. This concern, coupled with an augment in sensitivity towards the benefits of nature for children's development, has determined an increase in nature education.

In the following section, we will talk more about the benefits of nature for children's development, before passing to the analysis of the different "disciplines" connected to nature education.

BENEFITS OF NATURE FOR CHILDREN' DEVELOPMENT

We collected different scientific papers showing how nature helps children in their development, improving their health, learning, social cohesion and environmental consciousness. Many scientific studies show how exposure to nature, whether virtual (pictures, videos or recorded sounds) or experiential(walks, swimming in the sea, wilderness camp, essential oils), is beneficial for healthy human development. Health improvement is statistically evident in immune system strengthening, improved sleep quality, fitness, motor skills, and cardiorespiratory health. The sunlight, the sea, the forest and the parks appear fundamental for physical and mental health, both for children and adults.

In addition to health benefits, science shows that spending time in nature has a positive impact on concentration, memory, language skills and creativity. This improves the ability to generate innovative ideas, creative problem solving and flexibility to adjust to an increasingly complex world filled with information, technology, and diverse people. Studies show even that natural exposure is beneficial for stress recovery and in restoring self-directed attention.

All these learning benefits appear connected to mental health improvement: reducing the inflammation of the central nervous system, anxiety, mental rumination and stress effects.

Exposure to nature is beneficial not only for health and personal development but also for social interactions, cohesion and integration by offering a broader scenario in which differences can be more easily accommodated and shown as opportunities for growth rather than conflict. Studies show that nature improves self-esteem and confidence, mitigates the effects of loneliness especially at a young age, offering a nourishing environment where children feel a sense of belonging and can learn to manage risks. In addition, there is statistical evidence showing less aggression and more kindness in children who get to spend time outdoors. The ability to cooperate and communicate are improved. Moreover, a study from the Institute for European Environmental Policy (IEEP) founded by the EU shows that natural environments can contribute to increased social cohesion and reduced social tension, and can strengthen people's attachment to their communities and help people from minority groups or different cultural backgrounds to become more integrated.

Another study focuses on the connection between aesthetic and spiritual values and natural experiences. This study shows that spending time in nature during childhood is connected to a sense of excitement and wonder, spending time with animals and trees with a sense of communion and the presence of water with a sense of order. Furthermore, the more the parents had important natural experience in their childhood, the more their children show a spiritual and aesthetic orientation.

Finally studies show that spending time outdoors promotes connectedness with nature and ecological behaviour; creative nature experience enhances a sense of belonging as part of the landscape and supports a greater understanding of the local natural environments and of the mutual support structures involved in life on earth. All these features appear fundamental for the education of the leaders of the future, to attain a sustainable and healthy life on earth.

Research shows that people benefit from exposure to nature in all areas of life. Therefore we could say that nature education provides a highly effective way of addressing some of society's key challenges.

Research, reports, policy documents and news items that suggest the huge benefit of nature in the development are more and more present in the literature and confirmed the essential need of children to spend time outdoors.

Also, in times of upcoming ecological crisis, the sustainability topic has become one of the priorities in global educational agendas, and it has become easier to understand the importance of connecting the young generation to their natural environment.

The 2015 Blagrove report on The Existing Evidence-Base about the Effectiveness of Outdoor Learning found that:

- Almost all outdoor learning interventions have a positive effect.
- The effect attenuates over time: the effects measured immediately after the intervention are stronger than the those measured after a few months.
- Evidence for the value of longer interventions: the systematic reviews found that overnight and multi-day activities had a stronger effect than shorter ones.

To conclude, here follows a very brief collection of the macro areas in which nature education has impact, as synthesised by the Institute for Outdoor Learning, 2021):

- At a global level: fostering a connection that leads to respect and care for the natural world, an appreciation of biodiversity and sustainability, and pro-environmental behaviours.
- At the societal level: developing a sense of place leading to greater engagement within a community and an appreciation of the opportunities available to live, learn and work in the local area.
- At the interpersonal level: providing a safe and supportive setting to enhance social skills, appreciate and value differences. Encouraging loving and meaningful relationships across generations that foster tolerance, respect and kindness.
- At the intrapersonal level: engagement with the outdoors for health, wellbeing and nature connection, leading to lifelong participation and outdoor competence. Developing character, resilience, and positive risk taking.

Seeing all the evidence, we should maybe realise that nature is our original living and growing environment (as it has been our evolutionary field for millions of years), and the perspective maybe should not be about benefits when going outside, but about deficits when putting children inside.

Different disciplines

The connection with nature in education can take different approaches and different terms that sometimes are not used identically in different cultures. The above characteristics or benefits of nature are common to all outdoor activities that involve learning, but some approaches have specific definitions.

Education in Nature can indeed have a wide range of interpretations: how much time in nature is necessary to call a school a "Nature School"? Does it need to be 100% of the time? Is more than 50% enough? Or is going out twice a week sufficient to talk about Education in Nature?

The specific environment also plays a role: Is a big garden or a city park "Nature", or does it need to be "wild" nature? ...how "wild" does it have to be? As there is (at least in Europe) practically no primary landscape left and what we perceive as "nature" is in big part already a secondary or cultural landscape.

Does a School in Nature need to have a shelter or other infrastructures, or does all we need fit into our backpacks and maybe a trolley?

Schools in Nature are still mostly set up for kindergarten age (3-6 years). Should it be extended to older ages, or do older kids already need more cultural environments, and if we decide to extend the age, should it be combined with activities in buildings?

These are not just rhetorical questions brought here for theoretical analysis. These questions are actually strongly discussed in the Education in Nature movement and have led more than once to heated discussions.

In the following section, we provide a systematic review of the major disciplines/approaches that could be identified when talking about nature education.

Environmental education

The roots of environmental education can be traced back as early as the 18th century when Jean-Jacques Rousseau stressed the importance of an education that focuses on the environment in his book "Emile: or, On Education". Several decades later, Louis Agassiz, a Swiss-born naturalist, echoed Rousseau's philosophy as he encouraged students to "Study nature, not books." These two influential scholars helped lay the foundation for a concrete environmental education program, known as Nature study, which took place in the late 19th century and early 20th century (see McCrea, 2006)

The nature study movement used fables and moral lessons to help students develop an appreciation of nature and embrace the natural world. Anna Botsford Comstock, the head of the Department of Nature Study at Cornell University, was a prominent figure in the nature study movement and wrote the Handbook for Nature Study in 1911, which used nature to educate children on cultural values. At the same time, a new type of environmental education, Conservation Education, emerged in the 1920s and 1930s. Conservation Education dealt with the natural world in a drastically different way from Nature Study because it focused on rigorous scientific training rather than natural history. Conservation Education was a major scientific management and planning tool that helped solve social, economic, and environmental problems during this time period.

The modern environmental education movement gained significant momentum in the late 1960s and early 1970s, and it stems from Nature Study and Conservation Education. During this time period, many events took place to raise awareness about the public's concern for their health and the health of their natural environment.

The first article about environmental education as a new movement appeared in Phi Delta Kappan in 1969, authored by James A. Swan. A definition of "Environmental Education" first appeared in Educational Digest in March 1970, authored by William Stapp. Stapp later went on to become the first Director of Environmental Education for UNESCO, and then the Global Rivers International Network.

Ultimately, the first Earth Day on April 22, 1970 - a national teach-in about environmental problems - paved the way for the modern environmental education movement.

Internationally, environmental education gained recognition when the UN Conference on the Human Environment held in Stockholm, Sweden, in 1972, declared environmental education must be used as a tool to address global environmental problems. The United Nations Education Scientific and Cultural Organization (UNESCO) and United Nations Environment Program (UNEP) created three major declarations that have guided the course of environmental education. (see History of Environmental Education, K12)

Environmental education as it is practised now, is a process that allows individuals to explore environmental issues, engage in problem solving, and take action to improve the environment.

Despite its clear interest in nature, environmental education does not have to happen outdoors all the time, and it can be theoretical.

OUTDOOR LEARNING

The Institute for Outdoor Learning defines outdoor learning as “an umbrella term for actively inclusive facilitated approaches that predominantly use activities and experiences in the outdoors which lead to learning, increased health and wellbeing, and environmental awareness”. (2021) This is a “a broad term that includes discovery, experimentation, learning about and connecting to the natural world, and engaging in environmental and adventure activities. Outdoor learning involves the transformation of knowledge, skills, attitudes and behaviours through direct engagement with the outdoor environment for the personal and social benefit of individuals, families, society and the planet.’ (ibid).

It is important to consider that outdoor learning is more than ‘simply taking what could happen indoors outside’ (ibid).

As Waite and Morgan points out(2020), the roots of outdoor learning lie within outdoor and adventurous education which tend to involve remote places and challenging activities. The Outward Bound project, since the beginning of XX century is an example of it. (see <https://www.outwardbound.org/>)

The contemporary field of outdoors encompasses three distinct yet related approaches: adventurous activities, environmental fieldwork, and 'nature connection'. It is desirable to integrate two or more of these approaches synergistically to enhance learning opportunities. Outdoor learning is adult-led, often with a more structured approach and desired learning outcome(s). When referring specifically to education of children, taking learning outside the classroom provides children with opportunities for experiential learning; this practical style of learning can improve engagement and make learning more memorable. Spending more time outdoors in nature also helps to decrease stress and anxiety, and has benefits for both physical and mental health.

Outdoor learning in this sense may include learning in natural environments, but also in urban contexts like cities and indoors, such as museums and workplaces (Bentsen and Jensen, 2012). Thus, Outdoor learning can be seen to occur across a spectrum from relatively human-dominated spaces (the built environment of settlements) to extensive and relatively 'nature'-dominated or 'wild' spaces (whilst acknowledging the problematic nature of these terms). Such contexts are 'special' because of their 'natural' characteristics of biodiversity (whether in terms of abundance or rare species) and/or landscape qualities. But they are also 'special' in the sense that they provide a contrast to the typical spaces that most people encounter in their everyday lives within a human-dominated environment (see Waite and Morgan, 2020).

When talking about outdoor learning, we normally refer to specific outdoor activities set up for occasional excursions, often limited in time, guided and adult-led, and with specific focus on the experience.

FOREST SCHOOLS

Forest School is a form of outdoor learning which is characterised by a learner-led approach. It is focused on the holistic development of the child and delivered as a long-term programme in a woodland or other natural setting. It supports play, exploration and risk taking with programmes that in some European countries are facilitated by qualified Forest School Practitioners. The interests and intrinsic motivations of the individual participants guides the content of the sessions, which should be supported by hands-on learning experiences. This process helps to improve learners' confidence and self-esteem, promoting independence, creativity and resilience, and emotional development.

Forest school has grown in a bottom-up, emergent way (Sackville-Ford & Davenport, 2019), becoming "a recognisable and desirable "brand" for settings to incorporate." In order to make clarity about what exactly forest school is and how it diverges from outdoor learning, the publication *Critical Issues in Forest Schools* (Sackville-Ford & Davenport, 2019), proposed to clarify the 'four key ingredients' of the approach as:

- learner-centred
- play-based
- long term
- within a wooded area.

Other practitioners and forest school experts disagree on the last aspect -- the importance of exposure to a wooded area -- since they consider that the forest school is more a philosophical place, rather than a real place. It is an approach in which the ethos of delivery is much more important than the nature place where the session happens.

The purpose of education is to inspire, encourage, and develop the curiosity to understand something new and learn. While both outdoor learning and Forest Schools do promote that sentiment from learners, forest schools focus on the individual learner and promote learner-led experience, and on long-term practice.

Often, forest school practitioners obtain information about each learner through the baseline assessment to be able to provide opportunities for growth and skill development through direct experiences. In this sense, forest school practitioners use the baseline information of each learner to increase emotional, physical, and social skills and provide healthy challenges.

4.4 What is Democratic Education in Nature?

Democratic Education in Nature is a pedagogical concept that combines Democratic Education and Education in Nature, by establishing schools with a strong connection to Nature, where democratic values, such as self-determination and democratic community processes, are the central pedagogical approach.

This concept tries to combine the benefits of both approaches, understanding that the democratic philosophy is the pedagogical core, taken out into nature, to benefit from all the richness this surrounding is offering.

This approach comes from the belief that the neutral, not intentionally designed and not pre-established character of nature spaces, can potentiate the fundamental idea of free self-determination.

Democratic Education in Nature therefore differs from the above mentioned approaches by the use of Self Directed Education and democratic community principles, that are not necessarily at the core of environmental education, outdoor learning or forest schools.

It has been noticed that some Forest Kindergartens draw from the pedagogical approach and methods of contemporary "house" Kindergartens, adapting them to the "new" surrounding, missing the opportunity to realise that nature is not an empty building that we have to fill with materials and activities, but offers a rich infinite diversity of stimulus, allowing to rethink our pedagogical point of departure.

Democratic Education offers in this sense a set of pedagogical beliefs which allow children to be exposed to nature with the possibility to freely explore and decide how and what to learn in nature, without a pre-established curriculum. The self-directed exposure that is triggered by the internal motivation of the children provokes a much more deep connection with nature and a real emotional relationship of great full and responsible caring for nature.

Next we provide some examples of how Democratic Education benefits from Nature exposure and how nature exposure benefits from the Democratic Education philosophy.

Democratic Education and Education in Nature complement and nurture each other in many ways. Democratic Education offers an opportunity for direct participation in decision-making processes and social integration in wilderness education projects. It can be an excellent way to bring children together in nature, offering tools to develop social cohesion, community identity and self-esteem, while nature appears as the perfect environment to stimulate cooperation, communication, creativity and learning.

Studies show that in nature, cooperation and communication are promoted primarily by the reduction of hostility, adrenaline and noradrenaline in the blood, which promotes calmness and mutual understanding. In fact, even impulsivity and social tension reduces in contact with a natural environment, helping the collective decision-making processes. The affective state and sense of belonging improves and people from minority groups or different cultural backgrounds can become more integrated. In addition, language skills are fostered by the variety of landscape and situations promoting communication in a very practical way.

We see creativity nurtured in a richer imaginative play in the children who spent time in nature and an improvement of creative problem solving when people spent time in nature without technology.

The learning process benefits from nature with an improvement of memory, attention and concentration. Moreover we see that the fascination coming from nature helps children to restore the self-directed attention, essential in the process of self-directed learning, one of the central features of Democratic Education.

For that we found that all the main characteristics of Self Directed Education are promoted by the exposure to nature: we already wrote about how the democratic decision making process improves thanks to the promotion of communication and cooperation, and in addition nature helps children to take responsibility of their education fostering attention, concentration, calm, vitality and focus. NE even helps adults becoming helpers instead of judges in a more diverse and unpredictable environment.

Nature gives chances to experiment our abilities on many levels offering unlimited opportunity to develop children's passion being a perfect playground for developing creativity and imagination. Finally, in Democratic Education in Nature, children are trained to take risks and expose themselves in public, aspects that are essential for bringing innovative ideas to the community for the collective welfare.

Here follows a list of benefits of nature for self-directed learning:

1. phytoncide decreases adrenaline and noradreneline
2. M.Vaccae decreases anxiety and improves learning
3. Biodiversity increase interest and mental health
4. Decrease of hostility and depression
5. Increase in vitality
6. Increase in memory
7. calm, active and focused (organic outdoor learning environment)
8. richer and more focused play, positive social interactions
9. increase attention and stress recovery

10. language skills (communication)
11. increased creativity
12. social cohesion, community identity
13. self-esteem
14. synchronicity of different areas of the brain(sensorial, affective, cognitive)
15. impulsivity and time's perception
16. nature and preference improves affective state
17. mental well being, connectedness with nature and ecological behavior
18. belonging and awareness of the mutual support structures
19. pro social and pro environmental
20. mindfulness (observing and nonreactivity)
21. attenuation of the loneliness effect

5. COUNTRY ANALYSIS

5.1. The Education System in Spain

Introduction

The Spanish Constitution (1978), as the supreme norm of the national legal system, recognizes, in Article 27, the right to education and educational freedom. The following educational laws, which since the governmental democracy have been subject to modifications according to the different ideological currents in power, regulate this constitutional right, and create the framework of the educational system in Spain:

The education system in Spain is governed by the Organic Law 3/2020, of December 29, which amends the Organic Law 2/2006, of May 3, on Education (LOE, 2013), repealed the LOMCE and introduced significant modifications to the LOE, a law in force since 2006, the LOMLOE.

Since the General Organic Law of the Educational System (LOGSE) of 1990, education in Spain has been defined as compulsory for students up to the age of 16. and compensatory, which means that it must offer the same educational opportunities to all students.

In Spain, the different Autonomous Communities have legal, executive, and administrative competence in matters of education. They have the autonomy to determine the contents within the curriculum structure and timetable.

The LOMLOE provides the possibility of creating mixed systems of teachings from the Spanish educational system and other systems, referring to international or national educational systems with alternative pedagogies. These are the provisions where the Democratic Schools make sense.

Regarding the autonomy of the educational institutions, the LOMLOE provides in article 120 that the schools shall have pedagogical, organizational and management autonomy. In the exercise of this autonomy, they must elaborate, approve, and execute an educational project and a management project, as well as the rules of organization and operation.

The pedagogical autonomy of schools includes their own decisions on what to teach and how to teach it within, of course, the corresponding legal framework.

The educational and curricular projects of the schools are the instruments in which autonomy in the organisational and pedagogical sphere must be specified.

Pedagogical autonomy is not limited to the specification and adaptation of curricular content; it also includes methodological specificity, the commitment to educational innovation, teacher training, and the planning of teaching activities.

Organisational autonomy

The organisational autonomy of schools takes the form of differentiated organisational and operational projects in terms of the organisation of school time and space, the grouping of students and the actions of the teaching staff in relation to the projects and the school model. On the other hand, according to the Spanish model, organisational autonomy must guarantee, within a general framework, adequate participation of the entire educational community (all teachers, parents, students, and administrative and service personnel).

The autonomy of the school must allow the realisation of a project for the organisation and management of education appropriate to the educational community's expectations and the student's specific needs. Schools must have a general framework that allows them to concretise the participation of the entire educational community and, simultaneously, allows its concretion in different organisational and operational projects regarding the organisation of school time, the grouping of students, the coexistence model, etc.

Autonomy is a prerequisite for participation. Participating in the management of schools means exercising or assuming an actual share of power, that is, having the capacity to make one's own decisions. The LOMLOE establishes the nature and content of these documents in Articles 121 for the Educational Project, 123 for the Management Project and 124 for the Norms of organisation, operation and coexistence.

Management autonomy

This autonomy, also known as administrative autonomy, can be considered the legal or operational capacity to contract services and people, establish agreements and contracts, and intervene in assigning people to the school's team of professionals. Likewise, it refers to the capacity to administer freely, within the legal framework, the economic resources concerning the foreseen objectives and the elaboration, execution, and evaluation of its budget.

A demonstration of the autonomy of the teaching staff regarding the design of didactic proposals is shown in article 91 of the LOMLOE, functions of the teaching staff, in point 1. "The functions of the teaching staff are, among others, the following: a) The programming and teaching of the areas, subjects, modules or curricular areas entrusted to them."

"(g) The contribution that the activities of the educational institutions are developed in a climate of respect, tolerance, participation and freedom to foster in students the values of democratic citizenship and culture of peace."

These two points appear as novelties in said Law, with respect to the LOMCE, although they did exist in the previous one (LOE).

Innovation

It is a fundamental principle of the Law, according to Article 1. n) The encouragement and promotion of research, experimentation, and educational innovation. Similarly, among the functions of the teaching staff is innovation, when in Article 91 of this Law, on the functions of the teaching staff, it is made explicit that among their duties are: l) Research, experimentation, and continuous improvement of the corresponding teaching processes.

One of the principal competencies is, according to article 132 c), Exercise of pedagogical direction, promote educational innovation and plans to achieve the purposes of the educational institution's educational project.

At the same time, it urges the (autonomous) educational administrations to strengthen and promote the autonomy of the schools so that their economic, material, and human resources can be adapted to the work and organization plans they draw up once they have been appropriately evaluated and assessed. The schools supported with public funds must render accounts of the results obtained.

To promote experimentation, pedagogical innovations, educational programs, work plans, forms of organisation, coexistence rules, an extension of the school calendar or of the school timetable of areas or subjects, following the provisions of article 120.a. M) To promote the qualification and training of the teaching staff, as well as research, experimentation, and educational innovation in the school.

Regulatory legislation for the opening of Education Centres in the compulsory schooling stages:

Contrasting the reality of the educational system in Spain with the Spanish Constitution, we find that, especially from primary education onwards, the implementation of innovative proposals such as Democratic Education and Education in Nature, which already have experience, comply with current pedagogical standards, and are recognized in other European countries, face at least two major challenges in Spain:

- On the one hand, the proposal of self-directed learning, does not coincide with the requirement of pre-programming of activities and contents, which must be submitted to the Ministry of Education prior to the beginning of the school cycle (see LOE, article 125). Although there is a new curricular flexibility, based, for example, on the acquisition of competencies (see LOMLOE, article 6), a pre-established curriculum must be followed for each school level (segregated by age), detailing the objectives for each subject. This requirement does not allow freedom to direct one's own learning, nor is it centered on the interests of the students.
- On the other hand, every educational center, which wants to be regulated and recognized as such, must have an infrastructure that leaves out of possibilities small educational communities, since the technical requirements, for example, demand that every Primary Education Center, has a partially covered patio, in no case less than 900m² (see Royal Decree 132/2010, of February 12, article 3). This shows that technical details (which only contemplate the existence of macro-schools) are placed above pedagogical concepts, educational qualities and human resources.

Having said this, we can understand that these requirements deepen the gap between public and private education, since having such infrastructure requires a large economic investment, which translates into very high monthly fees for families who choose alternative pedagogical proposals, so it ends up being exclusive.

At the same time, it forces families who choose non-regulated pedagogical alternatives, or practice homeschooling or Unschooling (which are not recognized as educational rights), to be left out of State services, renouncing their constitutional right to education and freedom of education, due to unequal conditions/opportunities.

This is how, in the current Spanish reality, families of low and medium resources who, for different reasons, decide to attend school, can only go to traditional public or subsidized centers.

From the growing need of families to organize themselves to get the education that they think is most beneficial and healthy for their children, seeing that the state does not really guarantee educational alternatives in public institutions, alternative schools are born, most of them, organized as non-profit associations (NGOs).

Schools in Nature:

In the History of the Schools in Nature, we have already mentioned the "Escuela del Bosque" of Barcelona, founded in 1914, and we know of many others that encouraged contact and coexistence with and in nature, but after the Republican side lost the Civil War (1936-1939), these types of initiatives and practices disappear.

The current Nature Schools do not have a long trajectory, the oldest ones are little more than 10 years old. Today there are already more than 50, but most of them have only started to operate since the 2020-21 school year, after the Covid19 pandemic.

These schools, playgroups or learning communities are not very diverse in terms of the pedagogy applied in the Nature space.

We should also mention the difficulty of finding spaces in nature, and that are as "wild" as possible, especially in urban areas, but even in rural areas.

Some Autonomous Communities have regulated two Schools in Nature but only as a Children's Educational Center: Bosquescuela Cerceda (Interprende S.L. -not NGO-), in Madrid, which has the municipal permission to be located in an open rural space, with a 50m2 cabin infrastructure; and Bosqueco (NGO), in the Canary Islands, which is located in a manor house with a large delimited and closed land, but quite wild. In both cases, adaptations have been made to meet the regulatory requirements, both technically and pedagogically.

It seems that most Nature Schools in Spain develop their programming in strong reference to the traditional curriculum, with compulsory "classes", with similar contents, and at the end the similar vertical hierarchy structures between adults and children (even having a more respectful and friendly approach), changing only the environment and the didactic materials they use for "natural materials", just incorporating some more activities of free choice, but programmed and proposed by the pedagogical team.

There are very few initiatives of this kind that offer this proposal for the Primary Education level (6 to 12 years old), and the few that do, do not mention it openly due to the fear of the repercussions that this may cause them on the part of the government authorities, since for this stage, the expectations and demands of academic learning are greater and, as we have already mentioned, the legislation indicates schooling.

Democratic Schools:

In history of Democratic Education we have already highlighted the pioneering position of Spain as a reference of the educational vanguard in the late nineteenth and early twentieth century. At that time, two important national and international educational institutions already emerged in Spain: the Institución Libre de Enseñanza (ILE), founded in 1876 by Laureano Figuerola, dismantled in 1939 after the Republican defeat in the Civil War; and the Escuela Moderna, founded in 1901 by Francisco Ferrer Guardia, banned and closed in 1906, after the shooting of its founder, in a very complex political context.

Nowadays in Spain, the presence of Democratic Schools is little. Until very recently, Democratic Education was not mentioned at all in the training of pedagogical careers, and currently its reference is really little, qualified teachers have no knowledge of this educational model and, since the current complementary training offer does not give it presence either, there is a lot of ignorance on the subject. We also mention once again the lack of flexibility in the regulations governing the opening of new educational centers and the legal framework of the Spanish educational system. Therefore, the few democratic schools that are regulated have resorted to the framework of regulation as a Foreign Educational Center, whose certifications and annual inspections imply an economic investment that is impossible to assume for projects that want to be inclusive.

Even so, the approved democratic schools, must find a balance between a deep will to put at the center of their pedagogical project an education based on the free and autonomous learning of children and, at the same time, the adaptation of their pedagogical concept to be able to count on such regulation.

Some examples are: Dragon International School, Madrid; Madrid Active School, Madrid; Alma Forest School, Andalusia (also integrates Nature Education components); Kaleide International School, Canary Islands.

All these centers cover at least the infant and primary stages.

None of these examples receive state subsidies, so their monthly contributions are not affordable for many families.

Democratic Schools in Nature:

There are very few Democratic Education in Nature initiatives in Spain, to name a few: Ojo de Agua, in Alicante; Entre Arbres, in Catalonia, and PlayaEscuela El Médano, in Tenerife.

They are constituted as non-profit associations.

As there is no educational framework that identifies them, they are not regulated in the Spanish Educational System. Therefore, none of them have financial support from the state and, although their monthly fees are not as high as the Democratic Schools and the Schools in Nature that are regulated, they cannot be truly inclusive in an economic sense either.

5.2 The Education System in Belgium

The federal government manages the overall educational structures while each of the Belgian language communities (Flemish, French, and German) have the responsibility to organise and implement the different education systems. The curriculum is also determined by the individual regions. The below description is therefore intended for the Flemish language community and is mostly based on the publication "Education in Flanders, a broad view of the Flemish educational landscape", edition 2005.

Freedom of education is a constitutional right in Belgium. This means that every natural or legal person has the right to organize education and to set up institutions for this purpose. The government may not take preventive measures to prohibit the establishment of free schools. Finally, the government is constitutionally obliged to organize neutral education.

The concept of organizing body (or school board) is a key concept in the organization of education in Flanders. The organizing body is responsible for one or more schools. It can be compared to a board of directors in a company. The organizing body can take the form of a government, a natural person or a legal person(s).

The organizing bodies have broad autonomy. For example, they are free to choose their teaching methods and can base their teaching on a particular philosophy of life or pedagogical conception. They can also define their own curricula and timetables and appoint their own staff. Schools that want to be recognized or financially supported by the government must meet the attainment targets, be sufficiently equipped and have sufficient didactic materials. They must be located in buildings that are habitable, safe and sufficiently clean, etc.

The constitution also guarantees the freedom of choice of the parents. Parents and children must have access to a school of their choice at a reasonable distance from their place of residence. Recent legislation further explains and protects this freedom of choice. Schools are not allowed to refuse students, with the exception of a number of well-defined cases.

The educational networks, as a representative association of organizing bodies, often take over certain responsibilities from the organizing body; they draw up their own curricula and timetables. As a result, the organizing bodies involved cede part of their autonomy

Traditionally, three educational networks are distinguished:

- Community education (GO) is organized by the public institution on behalf of the Flemish Community. Community education is required by the constitution to be neutral. This means that the religious, philosophical or ideological beliefs of the parents and the students must become comparable.

- subsidized official education (OGO) comprises municipal education, organized by the municipal authorities, and provincial education, organized by the provincial authorities. The organizing bodies of this education are united in two umbrella organisations, the Education Secretariat of the Cities and Municipalities of the Flemish Community (OVSG) and the Provincial Education Flanders (POV).

- subsidized private education (VGO) is organized by a private person or private organisation. The organizing body is often a non-profit association (v.z.w.). Private education consists of separate schools. They are united under the umbrella Flemish Secretariat of Catholic Education (VSKO). In addition, there are also Protestant, Jewish, Orthodox, Islamic, ... schools. In addition to these denominational schools, there are also schools that are not linked to a religion. Examples are the method schools (based on the structure of Freinet, Montessori or Steiner) that apply specific pedagogical methods.

A small number of schools in Flanders are not recognized by the government. These so-called private schools are neither financed nor subsidized by the government.

The education that is organized for and by the government (community education and municipal and provincial education) is called official education. Recognized education from private initiative is called free education.

Democratic Education in Nature in Belgium:

In Belgium we have about 7 democratic schools. There was a Sudbury school in Gent that closed. Some of the democratic schools are completely self-directed with no activity proposed to the children (this is the case of Orvita that follows the Sudbury model).

Some other schools follow a more structured weekly calendar that has been agreed in the assemblies (it is the case of BOS school, Arbre de Possible and Orneau). All schools have an emphasis on the importance of nature, and most of the schools spend lots of time in nature.

The democratic schools in Belgium are not officially recognized as schools, therefore they tend to organize themselves in NGOs or educational centres and the children attending are legally considered as homeschoolers. In Brussels, families that enrol their children in a democratic school, have to sign a declaration of homeschooling either in the Flemish or in the French community.

Children enrolled in private schools or home schoolers must pass legal controls that vary according to the three communities: the Flemish community, the French community and the German-speaking community.

In this sense, several democratic schools tend to find a balance between, on the one hand, a deep desire to put at the heart of their pedagogical project an education based on the free and autonomous learning of the children and, on the other hand, the preparation of children for the acquisition of skills and results prescribed by the Belgian school system.

For the Wallonia-Brussels Federation, the required assessments are:

- a first assessment at 8 years of age
- a second assessment at 10 years of age
- the Basic Study Certificate (C.E.B.) at age 12
- the Certificate of Secondary Education for the first level (C.E.1.D) at age 14
- the Certificate of Secondary Education for the second level (C.E.2.D) at 16 years of age.

For the Flemish Community, the assessments are:

- a first assessment at the latest in the year of the child's 11th birthday
- a second assessment no later than the year in which the child turns 13, at which time he or she must obtain a secondary school certificate
- a third assessment no later than the year in which the child turns 15
- a final assessment no later than the year in which he/she turns 16, at which time he/she must obtain his/her certificate of lower secondary education.

Some democratic schools choose to accompany the children in the exams, while keeping in mind that parents remain responsible for passing the tests imposed by the two Communities. To help children prepare for the evaluations, but also to assess progress, some schools put in place evaluation tools adapted to the ages and respecting each child's background.

Some of these are:

- The relationship with the referring adult as mentorship, and individualised journey to follow the evolution of the long-term progress
- Keeping a "personal journal": to keep track of workshops, activities and games, sometimes completed by the child during the week and establishes a link between the activities carried out by the children on a daily basis and the skills used.
- Folders where children can collect their "discoveries" (drawings, works, etc.) and exercises during the year

5.3 The Educational System in Italy

The main reform that is now featuring the Italian Educational System dates back from 1999 (Law n° 275/99 - named "Autonomia Scolastica" - henceforth AS). The AS cancels in a definitive way the Central Educational System, centered on the National program, and it allows every schools to draft a specific curricula based on the peculiar needs of the community and the society in which the school is located.

Despite the AS, in 2012, the National Guidelines for the curriculum were drawn up, in order to define the common tasks and skills for all the Italian Students of primary and lower secondary school. Moreover, in 2015, the Law n. 107/15 (named Buona Scuola) enhances the AS and promote a more innovative school opened to educational challenges, thanks to several reforms such as a massive use of ICT in didactic, the compulsory training for teachers, and the upgrading of the number of teachers per school.

Today, it is possible to have a good degree of flexibility in school curricula, but it is rather difficult to realize it as the Institutes have to face several problems, in particular in organization and administration fields. Anyway, each school can define his own curricula, can plan different projects and activities, can draw up the rules of behavior at school, can choose the evaluation criteria and so on...

The head teacher has a lot of autonomy in his choices, but all the pedagogic features have to be shared, discussed and approved by the whole teacher team. Furthermore, the head teacher has to face a lot of issues such as the financial management of the school, the safety of pupils and workers, the relationship with parents and families, the dealing with the municipality, the fundraising activity etc...

The teaching staff of each school can choose their own pedagogical line. Besides, the introduction of didactic and methodological experiments at school is free and open, and it is decided by the whole team of teachers.

However, to give unity to the teaching action of the single school, every year a Plan of the Educational Offer (henceforth PTOF) is drawn up, designed and voted by the teaching team; PTOF is inspired by the act of principles of the School Leader. Istituto Carducci, e.g., adopts a school model called "Senza Zaino" which considers the school a democratic system where the cooperative learning is the most common methodology, where the pupils can take decisions with the teachers and so on.... basically it is a centered student system, and for this reason each teacher can determine the rhythm, the approach, the methodology that is appropriate to the class. Motivation, challenges, opportunities and communication are the most important factors to realize a flexible and innovative school, but sometimes all these crucial principles of the pedagogical thought clash with the rigidity of rules, laws and decrees of the State that guides the schools.

Parents of pupils attending non-parified schools apply for homeschooling or home education in which the family's choice is to provide directly for the education of their children.

Article 33 of the constitution allows entities and private individuals to establish schools and educational institutions, however non-parified schools (like democratic schools) cannot issue qualifications/degrees.

In order to guarantee the fulfilment of the duty of lower education imparted for at least the first 8 years (constitution art. 34) the child is obliged to sit an exam during all the school years.

In the case of parental education, the parents of the pupil are required to notify annually the declaration of homeschooling to the public school of residence.

Pupils attending non-parified schools (and therefore under the homeschooling legal system) have to undertake examinations every year for the passage to the next class, as external candidates at a state or parity school until the completion of the lower compulsory education (16 years of age) (Decree Law no. 62 of 13 April 2017, Art. 23).

Democratic Education in Italy:

In Italy, the constitutional principle of freedom of education is implemented throughout the country through state and non-state schools.

The Italian education and training system is divided into:

- . state schools
- . parified schools (law 62 of 10 March 2000)
- . non-parified schools /private
- . foreign schools (decree 389 of 18 April 1994).

Article 30 of the constitution recognises the duties and rights of the family unit to educate their children.

Therefore, for non-state and non-parity education, parental education is required.

In the legal framework of education, only state and parified schools are recognised by the national education system, with the right to proceed to student examination and to issue qualification.

The schools defined as non-parified schools/private, (including the democratic school projects), assolve the fulfilment of the educational obligation by providing the request for home-schooling (Legislative Decree 25 April 2005, no. 76 art.1 paragraph 4); as the Italian Constitution recognises the choice of the family to decide where and how to educate the children and not the obligation to attend school.

The democratic schools in Italy are mostly connected to the Libertarian model, and are grouped into the REL (Italian libertarian education network) in which libertarian and outdoor educational experiences in nature have been active for several years. In Italy there are various groups on the territory formed by people committed to cultivating libertarian educational practices and to making a libertarian educational experience arise in their area.

Each group is independent, forms itself autonomously, is self-organised and freely connects to other members/groups in the network. About 14 experiences mature enough to be considered schools fall into this section. Most of these schools apply shared decision making with children, have an emphasis on social equality and anti- authoritarian approach. Some of the schools are not completely self-directed, with a negotiated curriculum with children.

6. RESEARCH RESULTS

6.1 Results of the Questionnaire

Typology of questionnaire	Number of replies
Democratic education in nature	14 replies
Schools in Nature	11 replies
Democratic Schools	10 replies
Total	35 replies

General analysis

These are the overall features of the schools that replied to our questionnaires.

- the totality of schools were private schools
- all the schools were kindergarten and primary schools
- the schools had an average of 30 children each (with a minimum of 5 and max of 72)
- All schools had a great understanding of democratic education, nature education and high level of application of it
- All schools had high clarity on the definition of Democratic Education in Nature

About the possibility of choice for children about going or not outdoors: if children do not want to go outside, in most of the schools the decision is respected, but the child is observed and followed in their need, trying to understand the emotional reason for not choosing to be outdoors. In 2 schools, kindergarten children are not given the option to be indoors.

No school had training on Democratic Education, one had training on Forest Schools.

The following **challenges of Democratic Education in Nature** have been recognised:

About nature:

- It is difficult to take the children outdoors for so long, and so is the adaptation from the garden to the forest.
- Children are used to live in cities. Few of them have the opportunity to experience nature and that makes them afraid. And we, too, are city children and it is scary to face something so unknown. We have to work on it, on ourselves and then on the pupils.
- Sometimes children go too far away in the nature, and we cannot call them, therefore we need to go and look for them.
- Mistrust of nature, lack of knowledge, fear... Families do not spend time in nature. They don't enjoy it.

About children:

- To recruit more children to the school.
- To welcome children that are not often welcome or fit in classical schools.
- Different ages make the process more complicated.

About parents:

- The difficulty is dealing with the doubts that are raised from time to time by the parents, especially those with older children. Parents tend to be anxious about learning formal competences, sometimes sending children to classes after school. So after, if there is an organized activity to learn something by the children in the democratic school, they don't want to participate because they practice at home.
- Re-education of parents as well as giving a sensible continuity to school with the life outside school both in the family constellation and socially with the world.
- Parents fully supporting the idea (they still hold on to traditional educational systems)

- Some parents send their children to the school without understanding the pedagogy and the concept of a democratic free school, which may lead to misunderstandings.
- Challenges to harmonise the daytime community and the community of parents.

About staff:

- To find staff for a long period.
- To make sure that the work and emotional burden of the accompanying persons and the coordinator is not too heavy.

About finances:

- Economic self-management is very difficult without the guarantee that we are at least allowed to progress by our own means.
- Dependency on family fees.
- Economic challenge: To offer quality education, with the highest vocation and the minimum resources (private), to invest in obsolete infrastructures in order not to run the risk of closure.

About the legal framework:

- Non-recognition by the state/ministry of education.
- Infrastructural regulations that would allow the implementation of any education other than mass and institutionalised education.
- 90% believe that the legal and practical structure of the education system in their country does not allow democratic schools in nature to develop easily.

SOLUTIONS:

- Give real freedom of choice to parents about the education they want for their children.
- Legalise, validate this type of education.
- The recognition of other educational proposals with a regulation that identifies them, and the economic support of the state, so that it guarantees justice and educational freedom.
- The benefits of nature for children are well known, especially after the pandemic we have experienced. There are plenty of reasons for this.
- The most realistic proposal that I think could work is that every school should be allocated a public green space that can be used and the necessary infrastructure put in place.
- Proposal for teacher training. Infrastructure is important, but the adult role is even more important.
- I prefer that the community sustains the school, not the state as I do not "recognise" myself in the state.

LEARNING NEEDS

The responders of the questionnaire underlined the following needs as central to be able to increase their understanding and application of Democratic Education in Nature:

- Need to know more research behind this approach.
- Knowledge of real cases, examples, of young people and adults with such education.
- Knowledge of the day to day life in other projects and in other environments, in nature or not, based on these principles of Democratic Education.
- How to combine this education with the education at home, so the children are not confused.
- How to help the children develop their self-esteem and freedom.
- Have more training in nature education and Democratic Education.

SUGGESTED CONTENT OF THE WORKSHOP

The responders of the questionnaire enumerated the following inputs as suggestions for the workshop content:

- Legal framework
- Relationship with parents
- Pedagogy and Research on pedagogy
- Challenges for some children
- Infrastructure

6.2 Results of The Focus Group

The experts gathered in the focus group showed a generalised consensus on the added value of nature in a self-directed learning, and they all provided many inspirational examples of how nature helped children in the process of self-directed learning and at the same time how nature education is enriched and potentiated by a self-directed pedagogy.

About freedom to decide if going outdoors or not, most of the schools let the decision to the children, and they try to understand why the child decided or not to go outdoors, and accompany him/her in the process, highlighting the emotional aspects. They explain that the process is a long term one.

Some schools decide on a specific timetable to be outdoors, especially for small children who do not have yet the possibility or the wisdom to decide by themselves.

The experts gathered agreed on a list of major difficulties that democratic schools in nature are facing. Such difficulties are the following:

- Having a stable team
- Parents (fear of parents, understanding of the pedagogy)
- Finances
- Exams and legal recognition
- Neighborhood
- Closeness of these projects, like a bubble

By reflecting together on possible solutions to mitigate the above mentioned problems, the responders all agreed that the best ways to face challenges that most democratic schools in nature are facing could be summarised in the following points:

- activate a legal and advocacy strategy in order to allow democratic schools in nature to be legal, and financially stable
- keep sharing among the practitioners
- building up more scientific research

7. CONCLUSIONS

Nowadays, contemporary scientific standards in education, cutting edge studies on neuroscience and children development are reorienting international education expectations towards what Democratic Education has been indicating for more than a century: the need for a more respectful education that is based on a holistic wellbeing of the person, not only on academic achievements.

At the same time, researches on psychology, education, neuroscience, biology, also point out the importance of exposure and connection with nature for a healthy development of the child.

We can see that international organisations are pointing out to the importance of an education that is respectful of children rights and that connect children to nature (ie. UNESCO Report on the Future of Education and the EU Key Competencies Framework).

At the same time, we also witness that, besides a few advancing exceptions, conventional education is very slow to change, and the road to put in place a respectful education in nature is still long.

This research wanted to provide a contribution in accelerating these processes of educational change, by providing a comprehensive analysis of the features, benefits and challenges of Democratic Education in Nature.

The research, indeed, wanted to turn the attention to the potentialities that merging Democratic Education with Education in Nature could bring.

With this objective, the research provided a theoretical overview of Democratic Education and nature education, offered an empirical analysis based on literature review, questionnaires, focus groups and case studies.

In conclusion, the research can prove that the benefits of self determination and nature education that emerge in the most recent literature on children development are fully reported by the empirical findings showcased.

Both the democratic schools and the nature schools interviewed in the different methodologies confirmed that applying Democratic Education in Nature is beneficial for a healthy development of the students, to boost their motivation and to promote their personal and social skills.

At the same time, the challenges faced in the application of Democratic Education in Nature are really high in the schools that apply this pedagogy.

The study suggests that there are steps to be taken in order to advocate for this pedagogy at the national level, in order to allow for schools that apply Democratic Education in Nature to be supported financially, logistically and legally by the state.

Therefore, a roadmap of actions needs to be configured, including awareness raising (open up more in the local communities, doing more trainings and showcasing examples) research (need to provide more evidences of the benefits of Democratic Education) political advocacy (meeting with key policy makers to have an impact on the inclusion of Democratic Education in the national framework and in making more flexible the curriculum enforcement provisions) and legal actions (to support children rights of participation and choice on an EU and International level).

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