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# Promuovere un'educazione inclusiva attraverso la progettazione partecipata degli spazi di apprendimento all'aperto: spunti dai servizi educativi italiani

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Michela Schenetti<sup>1</sup> e Linda Petrucci<sup>2</sup>

## Sommario

Nell'ultimo decennio l'educazione all'aria aperta è diventato un tema di interesse per i servizi educativi italiani, rappresentando un'opportunità per promuovere pratiche didattiche attive e competenze trasversali nel contesto nazionale, in connessione con il mondo. È quindi necessario riflettere con intenzionalità educativa sugli scopi degli spazi esterni e sul loro ruolo nella pianificazione pedagogica generale. Questo studio si concentra su un processo di progettazione partecipata degli spazi esterni e descrive l'esperienza svolta in alcuni servizi educativi della Regione Emilia-Romagna, con il coinvolgimento attivo di educatori, insegnanti e *stakeholders*. I risultati della ricerca sono presentati sotto forma di linee guida, che rappresentano uno strumento formale utilizzato per incoraggiare pratiche di progettazione partecipativa e un punto di riferimento per la pianificazione di spazi di apprendimento all'aperto.

## Parole chiave

Spazi educativi all'aperto, Ricerca-Formazione, Progettazione partecipata, Servizi educativi inclusivi.

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<sup>1</sup> Dipartimento di Scienze dell'Educazione, Università di Bologna.

<sup>2</sup> Dipartimento FISSUF, Università degli Studi di Perugia.

# Promoting Inclusive Education Through Participatory Design of Outdoor Learning Spaces: Insights from Italian Educational Services

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Michela Schenetti<sup>1</sup> and Linda Petrucci<sup>2</sup>

## Abstract

Over the last decade outdoor education has become a topic of interest for Italian educational services, representing an opportunity to promote active teaching practices and transversal competences in the national context, in connection with the world. It is therefore necessary to reflect with educational intentionality on the purposes of outdoor spaces and their role in overall pedagogical planning. This study focuses on a participatory design process of outdoor spaces and describes the experience carried out in select educational services in the Emilia-Romagna region, with the active participation of educators, teachers and other stakeholders. The research findings are presented in the form of a set of guidelines, which represents a formal tool used to encourage participatory design practices and a benchmark for outdoor learning space planning.

## Keywords

Outdoor learning environment, Teacher professional development research, Participatory design process, ECEC services.

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<sup>1</sup> Department of Educational Sciences, University of Bologna.

<sup>2</sup> FISSUF Department, University of Perugia.

## Introduction

Outdoor education has been a recurring theme in educational services in Italy over the last ten years. This is evident from the considerable increase in scientific publications on the subject and the renewed interest of practitioners, resulting in the organisation of numerous conferences and seminars; from requests for initial training, leading to the creation of specific advanced university training courses, and from those for in-service training, involving numerous educational services throughout the country.

The recognition of open-air education within the recent *Pedagogical Guidelines for the Integrated «Zero-Six» System* (Ministerial Decree no. 334, dated the 22nd November 2021) and the *Guidelines for Infant-Toddler Centres* (Ministerial Decree no. 43, dated the 24th February 2022), promoted by the Ministry of Education, University and Research (MIUR), has made the needs for training even more pressing.

The outdoor environment provides learning opportunities in a rich and meaningful context and represents, together with teachers and peers, the third educator (Berris & Miller, 2011; Moore & Sugiyama, 2007); it allows access to less structured contexts and exposes children to learning opportunities that support their early development. Moreover, several studies show that young children, with the support of early childhood educators, can be meaningfully involved in ecologically sustainable practices (Konerman et al., 2021).

We know how important it is for educators to «lay a sound intellectual, psychological, emotional, social and physical foundation for development and lifelong learning» (Samuelsson & Kaga, 2008, p. 12) by utilising all the opportunities available to them, yet, international research highlights that outdoor spaces are still underutilised (Ernst & Tornabene, 2012).

Providing intentional and conscious outdoor education necessitates a rethinking of spaces, settings, materials, but also of time and relationships, and offers the opportunity to make well-being and quality of life central to the purposes of educational services, starting with the very youngest children. At the same time, it requires that the adult makes a careful analysis of the child's evolutionary needs, a constant effort to ensure coherence between pedagogical theories and educational practices and a genuine willingness to bring into play their own professional habits and behaviour.

Outdoor education, therefore, does not mean moving the activities that were originally planned to take place in the classroom outdoors, nor does it mean increasing moments of leisure or play. Outdoor education calls into question the professional skills of the teacher, who is asked to design teaching experiences in spaces that can be defined as «learning environments», capable of involving children differently, activating their empathic skills towards other living beings

and in some cases leaving them free to explore, move and understand through their bodies, without forgetting educational goals and objectives.

Educating outdoors is an opportunity to promote active teaching practices and transversal competences in the Italian context, in connection with the world, starting with childcare services. It is therefore necessary to reflect with educational intentionality on the purposes of outdoor spaces, which are still underused in the national context, with the aim of making them a full part of overall pedagogical planning.

The outdoor educational space needs to be thought out, designed and tested recursively in order to take the shape of a well-kept, clear and rich learning environment, capable of encouraging exploration, research and games while supporting children's autonomy and stimulating collaboration. Its essential characteristics include simplicity, functionality, and coherence with educational proposals.

It is fundamental that it also be a space that is flexible with regards to the developmental needs and interests of the child, who, for their growth and development, needs «more moving and adventurous places that smell of stones, animals and plants, spaces free for action, transformable, rich in natural materials, where he can dig holes, play with mud, swing and hide amidst bushes» (Schenetti, Rossini & Salvaterra, 2015, p. 129); therefore the spaces must be places where it is possible to invent and offer opportunities to live in relation to the world.

Adults are asked not only to increase outdoor activities, to redesign outdoor spaces, to equip them with curious and unconventional materials, but also to systematically rethink their professional skills in relation to the characteristics of spaces to be recursively reinterpreted and designed as potential didactic tools: plural, inclusive and heterogeneous spaces for relationships and exploration, places in which to experience that sense of adventure and risk (Knalves & Sandseter, 2023) in an educational manner, something that is increasingly denied in today's childhood.

The pedagogical challenge, thus, is to support the improvement of the educational and didactic quality of the services and schools that are open to the outdoors through constant reflection, by the operators involved, on their own experience and teaching.

For this reason, a self-assessment tool was created for monitoring and promoting the quality of outdoor education in educational services in the Italian context, which is called DNA — Didattica, Natura, Apprendimenti (*Didactics, Nature and Learning*) (Schenetti & D'Ugo, 2020, 2022). The DNA scale had the ambition of defining an idea of regulatory quality of services for children which also considers the outdoor space as an extension of the class, i.e. as a real learning environment, promoting a meeting between the principles and methodologies of deliberative democratic evaluation (House & Hove, 2003) and outdoor learning (Waite, 2011).

The tool aims to support the scientific nature of the design of new learning environments and of the teacher's teaching choices, snatching them away from the extemporaneous and improvisation, in order to guarantee centrality to the child, to their right to education and learning and to enhance the didactic professionalism of the teacher working in educational and school services, committed to providing children with real, authentic and challenging contexts. However, the tool alone is not enough: in order to support the whole process, it is necessary to design and realise new outdoor features characterised by their «quality».

This paper will focus on a participatory design process of the outdoor spaces of certain educational services supported by the Department of Education Sciences, UNIBO, through a teacher professional development research (TPDR) process, in which educators and teacher, together with stakeholders, were called upon to rethink the outdoor spaces of educational services with competence and intentionality, bearing in mind that the quality of the educational services also depends on the quality of the outdoor spaces (Lazzari, Musatti & Picchio, 2013).

### **Towards the construction of guidelines for the implementation of interventions in the gardens of nurseries and preschools**

Supporting educational services by rethinking their educational gardens represents an opportunity and an essential step towards stimulating relationships with natural spaces, starting with those that are available to children on a daily basis, passing through spaces of proximity, and ending with natural settings that are a little less anthropised. The reasons are many: natural spaces contribute significantly to learning about science (Garcia-Gonzales & Schenetti, 2019), since they offer numerous phenomena to explore, a variety of unsolved questions, and mysteries to discover that have a strong scientific character.

Natural environments are dynamic, complex, unpredictable, and it is precisely this 'wild' aspect, apparently disordered and not predefined, but at the same time harmonious, that encourages exploration, promotes children's curiosity, and maintains their concentration. The imagination of the child who is playing in a natural environment engages with elements offered by that environment, and uses them actively and constructively (Tovey, 2007).

The attractiveness of nature lies also in its noises and smells, and its ever-changing elements — such as clouds, wind, and rain — a multi-sensory range of stimuli that provides a wide variety of types of play and exciting psychomotor challenges.

When children are allowed to immerse themselves in nature, they can be seen to engage in spontaneous activities and are able to keep their attention

on the same task for relatively long periods, without appearing fatigued, bored, or nervous. All of this is essential to generating meaningful stories of learning (Carr, 2001).

Let us consider, for example, how many play opportunities a simple tree can offer. It can be climbed, serve as a hiding place, become a burrow or a house, provide shelter and protection, offer moments of rest and privacy, or be a point of reference. If the trunk or branches fall to the ground, they can become obstacles to overcome, they may harbour birds and small animals. The tree can have leaves, fruits, and flowers that fall, or provide inspiration for imaginary games (Nabhan & Trimble, 1994). The affordances (Gibson, 1977) of this versatile, outdoor, natural play space therefore offer multiple opportunities for different types of play for young children (Fjortoft, 2001).

When playing in nature, children often build burrows and shelters, special places that strengthen their bond with the natural world; spaces which have been transformed or built to escape the control and interference of adults; secret places known only by those who create them; exceptional, often safe and calm, small worlds organised using their own rules and norms.

These experiences offer the possibility of making up games through which children get to know themselves by facing their own fragility, but also their confidence when they are successful.

Outdoor play involves risks, which have the function of bringing children closer to stimuli capable of awakening an innate fear (heights, speed, loud noises) and which support the progressive development of strategies to cope with such situations. Outdoor play is conducted more in natural contexts, where the spaces are larger, the environments more varied, and there is a degree of unpredictability that is sufficient to create complex and stimulating settings.

The materials involved have a particular role to play in terms of learning since they provide great richness when children are playing in nature. They are free of cost, irreproducible, related to their environment, 100% biodegradable, not subject to safety regulations, and not always available due to seasonal rhythms. All this makes them very interesting, since they facilitate and stimulate the child's personal interpretation and transformation (Miklitz, 2011). Nicholson (1971) defines them as «loose parts» because they are materials that can be moved, carried, and combined as the child likes by being free and open to the world (Garcia-Gonzalez & Schenetti, 2022).

Promoting a connection with the local area and redesigning outdoor spaces brings with it multiple advantages, among others it allows one to:

- foster relations with other professionals who use open and extracurricular contexts for educational purposes;
- create a favourable learning environment from an interdisciplinary perspective, innovating teachers' teaching plans (Mygind, 2009);

- see experience in nature as an essential opportunity to meet the developmental needs of childhood, as brain researchers have underlined (Hinton, Miyamoto & Della-Chiesa, 2008; Oliviero, 2017);
- promote horizontal and vertical continuity processes that enable different (public and private) childcare services to be linked;
- dialogue with municipalities to review and share safety and prevention practices related to outdoor and public spaces (Schenetti, 2022);
- continue with reflections so as to ensure a non-episodic contact with the local area for schools of all levels.

On the basis of these assumptions, in the Bassa Romagna<sup>1</sup> area, which has been active in the field of outdoor education for a number of years, collaboration was established between the Union of Municipalities and the University of Bologna. Within this framework, TPDR processes were designed for educators and teachers and a multi-professional and cross-sectoral working group was set up, made up of the various professionals who contribute to outdoor educational spaces — prevention and protection service managers, municipal technical office contacts, pedagogical coordinators,<sup>2</sup> public works sector contacts, CEAS<sup>3</sup> (Centres for Environmental Education and Sustainability) and social cooperatives — with the aim of designing quality outdoor spaces.

Through discussion and debate, the members of the working group realised how often, behind the proposal of outdoor education, there is a need to promote direct, diversified, plural and intersubjective experiences, and that in order to root outdoor education within a context there is a need to promote participatory processes that actively involve all the stakeholders. Common processes, oriented towards the well-being of children, operators and families eager to rebuild an increasingly frayed social fabric, are needed.

The participatory planning process led to the drafting of a document, which later became a nationally disseminated volume, *Guidelines for the Implementation*

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<sup>1</sup> Union of municipalities created by the agreement of nine Italian municipalities in the Province of Ravenna: Alfonsine, Bagnacavallo, Bagnara di Romagna, Conselice, Cotignola, Fusignano, Lugo, Massa Lombarda and Sant'Agata sul Santerno.

<sup>2</sup> The institution of pedagogical coordination platforms is considered a strategic objective for the qualification of the 0-6 integrated system established by Law 65/2017. In the context of multi-layered governance characterised by a renewed system of institutional organisation, pedagogical coordination platforms play a key role in: (a) connecting the needs of local communities with regional planning of 0-6 provision, (b) providing professional support to early childhood educators and teachers through joint in-service training initiatives and interprofessional exchanges (c) fostering pedagogical experimentation and co-design of innovative educational continuity practices by involving local ECEC providers (Lazzari, 2022).

<sup>3</sup> CEAS, set up by public and private entities and promoted by the Ministry of the Environment with the 1993/1996 Three-Year Plan for Environmental Protection, are service structures for sustainability education, with the function of promoting information, training and environmental education for sustainable development for citizens and schools.



*of Interventions in the Gardens of Nurseries and Preschools and for the use of Natural Materials in Children's Daily Activities.* The document is intended as a tool for engaging the various sectors involved in nursery schools and preschools. The primary objective was to share a common language and culture with regard to safety issues and the educational needs to which the practice of outdoor education is intended to respond. The work began by focusing on two elements essential to the design of outdoor spaces: flexibility and co-construction.

Flexibility is considered to be the ability to think of space as something dynamic that can be continually modified, while guaranteeing elements of stability; it is thinking about materials and furnishings from a creative point of view. It also has to do with the necessity, when setting up outdoor spaces, of taking into account not only the children's needs, but also the characteristics of places that bring with them limitations and potentialities that can be tuned to the features of each place; it is about the quantity and care of materials.

The second element of interest was co-construction, not only because open-air spaces do not offer themselves up as pre-existing, but also because it is important that they be configured as lived spaces (Bronfenbrenner, 1979), as places in which it is possible to attribute personal meaning to objects and things, natural and/or artificial, in relation to ourselves, the world and others. Cognitive processes are rooted in sensory-motor processes, where the surroundings, individuals, environments, and objects play a crucial role in fostering cognition and learning through direct engagement with real-life situations. This emphasises the fundamental significance of first-hand experiences, wherein the mind is embodied and interconnected with the environment (embedded), actively participating in social interactions (extended), and dynamically engaged (enacted) (Clark 2008).

Spaces, in this sense, must offer the opportunity to be explored and reconstructed, filled with meaning, and traversed by direct experiences and narratives; real and metaphorical spaces, in which to encounter the infinitely small and the infinitely large, spaces of action and participation that invite children to move and at the same time learn to do so, to climb to reach things, but also to tidy up, sweep, wash and rinse, and to be autonomous and co-responsible. In this direction, building spaces together means educating the present self to take care of its own identity through caring for the place in which this identity is being built, in relation to others.

It was therefore important to rethink outdoor spaces not according to an adult idea of educational space, but rather through careful observation of children, in order to rethink the places that welcome them every day and recognise children as «competent beings» and «active agents», in terms of both environmental and social sustainability issues (Borg & Samuelsson, 2022).

Presently, when discussing inclusive education in Italy, it entails progressing towards a transformative approach that empowers the school community to

enhance teaching and instructional practices, which are specifically tailored to address the unique differences of each student. The ultimate goal is to foster an inclusive experience of socialisation and learning for all individuals. Inclusive education encompasses comprehensive planning of learning environments and a shift in teaching methodologies, with the aim of accommodating the diverse interests of students and ensuring their right to a fruitful educational journey (Malaguti & Augenti, 2022a).

This is why the process of defining the guidelines envisaged assisting educators and teachers in experiencing the outdoors by supporting their critical and observational gaze and urged them to resist the temptation to set up and structure outdoor spaces. This is also why it is possible to say that the guidelines take the shape of a tool that brings with it the idea of a quality which envisages the need to guarantee to all those who actually experience those services, albeit with different roles, quality spaces, and time and learning in democratic environments, capable of promoting a sense of collective well-being.

### **Materials and methods. From the research pathway: participatory design, participatory research and new spaces for learning**

Providing an intentional and conscious outdoor education requires rethinking spaces, furnishings and materials, but also time and relationships, and offers the opportunity to put well-being and quality of life at the centre of the purposes of educational services, starting with the very youngest children, in order to redefine the value of the body in education, to focus more on the direct experience of the individual and to favour their relationship with the world of living and significant things, and with the natural world in its various forms. At the same time, it requires adults to carefully analyse children's evolutionary needs, make a constant effort to ensure coherence between pedagogical theories and educational practices, and to develop a genuine willingness to put their own professional habits and behaviour into play.

Inclusive education presents a viewpoint that challenges the prevailing paradigm by shifting the focus from individual students to their surrounding contexts. It advocates the adoption of teaching methodologies and tools that primarily address the diverse needs of all students, including those with disabilities. Inclusion goes beyond mere placement; it encompasses a profound sense of belonging and a transformative educational experience. To achieve inclusive education, a comprehensive educational transformation is necessary, which ensures accessibility for full participation. It should not be perceived as an additional component to existing education systems, but rather as an integral part of the educational framework (Malaguti & Augenti, 2022b).

As is understandable to imagine, educators and teachers cannot do everything alone; it is necessary to raise awareness in the various professionals playing a role in educational services, to inform and involve parents, reference adults, and local authority representatives so that they can, day after day, become co-responsible and aware of the need to co-construct a culture in line with the evolutionary needs of today's children.

The methodology at the basis of the guideline construction process is a participative one, which, in Italy, takes the name of teacher professional development research (TPDR). It is an empirical research process conducted through differentiated research methodologies (inspired by the Mosaic approach by Clark & Moss, 2005), aimed at promoting the professionalism of teachers and educators through the construction of common inter-institutional research paths. The training that is implemented within the process is not only theme-specific but also aims to activate meta-reflective practices and support the professional empowerment of teachers. Today, it is more important than ever to emphasise the value of continuing to activate TPDR and participatory planning processes in order to spread a culture of outdoor education, which, within the Italian panorama, is still met with some resistance.

In a manner consistent with the principles of TPDR,<sup>4</sup> the aims of the research in terms of professional growth and development were made explicit, and much attention was given to the need to document and analyse the spin-offs of the journey undertaken together in terms of change. The roles, hubs and steps of what would be a study undertaken jointly by practitioners and researchers were also clarified. Adopting an TPDR approach was functional in order to achieve at least four aims:

1. to contribute to the development of pedagogical-didactical knowledge on the topics of outdoor education and space design;
2. to induce changes in teaching practices;
3. to break the crystallised routines in the work of the various professionals involved, prompting them to take responsibility for activating reflective processes (Schön, 1987);
4. to generate shared and transformative practices.

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<sup>4</sup> The following methodological characteristics can be considered both as binding principles for researchers in the field of TPDR and open questions in search of answers. 1. render explicit the aims of the research in terms of the professional learning and development of the teachers involved together with the procedures for documentation and evaluation of the outcomes and impacts; 2. define the composition of the TPDR group in terms of researcher/s and teachers, clarify their roles and negotiate and specify objects and objectives, values and methodological choices; 3. delineate and maintain a clear focus on the specificity of the institutional and non-institutional contexts in which the research is carried out, through constant analysis of the constraints and the resources present and which are crucial in all phases of the research; 4. systematically discuss ways of experimenting and gathering data during the research, so as to enhance the development of a scientific approach to educational praxis on the part of teachers, and of evaluating and documenting products and processes within the specific contexts involved and the professional development promoted; 5. maintain emphasis on the outcomes achieved by and for the school in terms of educational innovation, teaching praxis and professional development.

Reflexivity was a key ingredient for the children and adults involved in this study. As Clark writes «perhaps reflexivity is one of the important skills which researchers using participatory methods in childhood research can offer the communities of practice in which they work. This is the means by which to express one's own perspectives whilst being made aware of the perspectives of others» (Clark & Moss, 2005, p. 198).

We summarise the different forms of involvement of the actors in the research process in order to highlight the complexity and richness of the participatory process that characterised the construction of the guidelines and the subsequent design and fitting out of the spaces. The need for the construction of the guidelines arose following the involvement of teachers in a specific training process on the topic of outdoor education and through an empirical research process designed to promote reflections on their outdoor practices.

The research was carried out during the re-opening period of services immediately following the COVID-19 pandemic. Teachers in the area found themselves using outdoor spaces on a more continuous basis. The empirical research was conducted by means of a structured interview. The questions were conceived as an integral part of the training course: on the one hand, they were considered as activators of a reflection process, aimed at allowing each individual to become aware of the evolution of their own thinking; on the other hand, they were formulated with the aim of becoming material for sharing in the group in order to promote and support the creation of a common identity that could enhance the different perspectives emerging from the answers.

Analysis of the data shows how their outlook and skills were renewed by being outdoors every day and that this promoted a dimension of well-being in their educational role. The thresholds between inside and outside began to be seen no longer as boundaries or limits of space, but as elements of continuity. Teachers realised that indoor spaces do not exclude outdoor spaces and that both take on importance if experienced equally.

Outdoor geometries change and the adult takes one step backwards in terms of proactivity and one forwards in terms of attention; the axis of the relationship focuses more on the subject involved in the learning processes. The teachers' words revealed reflections on the professional role of the adult discovering the need to become an attentive and scrupulous director, renouncing meticulous control of the experience while recognising the multiplicity of variables at play.

This new sensation allowed them to analyse the obstacles carefully and confidently to be overcome in order to enhance even outdoor spaces as places of learning. For the teachers involved in the process, the outdoor space took on a leading role in the teaching action over the weeks and months; the garden became part of the educational action, a place where things seemed to happen naturally, spontaneously and sometimes unexpectedly. The teachers themselves stated that

these new realisations were made possible by the exponential and non-episodic increase in the number of outings, accompanied by productive joint reflection, the implementation of tools, set-ups and functional practices to support the indoor and outdoor experiences and to guarantee a feeling of ‘ease’ for the various stakeholders.

In a nutshell, the reflections drawn from the analysis of the data collected from the teachers’ answers can be grouped into four central attention points:

- the need to continue to go out and take the opportunity to reflect with the working group with a view to identifying perspectives for improvement;
- the importance of involving families in the process of rethinking spaces by also using educational technology to document processes and speed up communication;
- the value of being open to novelty, breaking free from rigid practices that are no longer representative of the needs of children and adults;
- the need to capitalise on the discoveries, including the technical and organisational ones, of the post-emergency period, such as the effectiveness of designing outdoor spaces for centres of interest more in tune with small groups of children instead of conceiving them as open spaces to be used freely even by children from several sections.

The child’s perspective is always taken into account by constructing, together with the teachers, observation tools designed to investigate their relationship with external learning spaces. The protocols collected reveal a teacher who is more attentive, open and ready to grasp the importance of concrete experiences, paying more attention to children’s ways of relating to each other and to their spontaneous playful behaviour.

Data analysis highlights how the attention of the teachers engaged in observing children’s conduct in relation to outdoor spaces shifted more towards their interests, and their questions and searches outside appeared more contextualised (in relation to the characteristics of the places), subjective (in relation to the peculiarities of each one) and above all more interesting in the eyes of the adults (because they were more spontaneous and less predictable but nevertheless connected to 0-6 learning). In the words of the teachers, the children involved in outdoor spaces emerge as more independent and eager to proceed independently. A state of psycho-physical well-being characterises outdoor experiences.

The emphasis on observation during the outdoor experiences enabled the teachers to support the exchanges, interests, and actions of the youngest children and at the same time to act with a view to a more child-centred redesign of the space: daily observation thus changed the adult’s perspective, making it more attentive and closer to the children’s needs.

Parents were also involved in the process through research and consultation. In the early stages of the process they were asked to complete a questionnaire

designed to capture their perceptions on the subject of risk, safety and the needs of 0-6-year-old children and at the same time raise their awareness of outdoor education. The survey consisted of 13 questions with which to survey the opinions of teachers and parents:

- on the possible use of natural materials to be made available to the children (earth, water, sticks, stones, clay, etc.) and animals to be cared for;
- on the possible presence of natural elements in the garden (plants, hills, hollows, ponds, sandpits, etc.);
- on the possible use of the outdoor space even in non-optimal weather conditions;
- on the organisation of unstructured activities with materials such as plastic boxes, tyres and ropes and motor activities such as climbing, jumping, rolling, somersaults, etc.;
- on their direct involvement in organising outdoor outings in both natural and urban environments;
- on which elements characterise a safe educational service;
- on the relationship between sustainability education, childhood and educational services.

Through the questionnaire, the teachers were able to ascertain a generally high level of agreement among parents towards experimentation and the use of materials by parents, and this was very important because it allowed them to overturn a preconceived notion based on which they were limiting the use of outdoor space. In fact, the need to construct and administer the questionnaire arose in order to understand whether the teachers' fears about parents' likely disagreement with the use of new educational spaces were well-founded.

Following this survey, however, having ascertained the great interest and general agreement of the parents, it was possible to involve them in various initiatives: workshops in nature, co-designed and organised by environmental educators and teachers; informative meetings with paediatricians and pedagogical coordinators. The high level of participation allows us to affirm that in recent years, even in the Italian context and perhaps due to the Covid-19 pandemic, families' perception on the subject of being outdoors has changed and grown positively.

The professionals in the aforementioned multi-professional and inter-sectoral working group were involved through focus group meetings,<sup>5</sup> designed to investigate the common attention points necessary for the work and the children's

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<sup>5</sup> «The focus group is a research technique that collects data through group interaction on a topic determined by the researcher. This definition has three essential components. First, it is clearly stated that focus groups are a research method devoted to data collection. Second, it locates the interaction in a group discussion as the source of the data. Third, it acknowledges the researcher's active role in creating the group discussion for data collection purposes» (Morgan, 1996, p. 130).

developmental needs considered from different professional points of view. The aim was to find a meeting point between paradigms and knowledge of different professions. The following conceptual nodes emerged from data analysis (table 1).

**Table 1**

Attention Point	Children's needs and interests
Parental awareness	Outside, no time is ever wasted: you find silence, animals, things to touch, insects, you can run around
Revise the pedagogical project according to the needs of the children	Manipulating natural elements, discovering their quality, ductility, composition and transformation; discovering the dimension of well-being in nature, as thoughts are freed from structuring, limiting and agreed-upon conditions
Create real collaboration between different players across educational services	Experiencing contexts/spaces in which exploration is open to risk; having non-adult-led times; experiencing adults (educators/parents) who give themselves the child's own slow time in discovery
Consistency with operating authorisations and regulations; «de-empowerment» of staff and parents; periodic space checks	Ability to support children-initiated activities and set up spaces that accommodate small groups of children
Reconciliation of very different views especially among parents; very different realities of educational services, need to contain educators' fears and anxieties	Welcoming, stimulating, listening, sharing, serenity, learning, relaxed atmosphere, experience
Even minor injuries can become instances of discussion among parents if they are not well-sensitised to the educational value of the experience; need to reinterpret the concept of «supervision»; importance of creating safe and stimulating environments for children	Relationships among peers other than in the classroom; moments of silence or of «doing nothing»; vision/use of the game other than for which it was built for; no «helicopter adults», i.e., super supervisors
Parents must be helped to understand the educational value of the experience; safety (games, rock pits, sticks); accident prevention; anticipate and limit unhygienic situations	Dig, hide, sniff, climb, get dirty, dream, explore, play, fall/rise, learn, experiment, swing, get bored, run, isolate, long times, no more hurry, child-friendly rules

After the experience had been completed, a follow-up focus group was planned in which representatives of the various stakeholders (teachers, parents, pedagogi-

cal coordinators, environmental educators, safety representatives and municipal representatives) were involved. The data collected highlighted how the participatory methodology succeeded in promoting a «critical distance» from everyone's professional practice (Elliott, 1998) and parents' personal knowledge. This hints at an important legacy in terms of awareness and skills acquired; it is not only the outdoor gardens of the educational services that will gain in value, but also the families and the various professionals who will see in the maintenance and care of those spaces an opportunity to open up to multi-professional dialogue and maintain a high focus on the quality of life of the children they welcome on a daily basis, on the quality of their learning and, necessarily, on the quality of the educational services in which professional practices take shape.

## Results

The guidelines were designed and consolidated on the needs of children, made explicit in the eyes of adults through the enhancement of the observational practices of educators within the services. The resulting outlook is one that is attentive to the health and safety of the children and to the quality of the contexts that welcome them and the learning that is possible. It was the result of agreement between all the parties involved, which were capable of listening to the voices of the children and rooted in an awareness of the potential and possibilities emerging from the use of outdoor areas of nurseries and preschools.

The guidelines include sixteen factsheets, designed to create diverse and safe play and learning settings that will be the subject of shared care and maintenance. They can be described as a formal tool used to encourage participatory design practices, the undeniable value of which is recognised in children's services, and are accompanied by explanatory photos (e.g., functional design fields, initial and periodic verification of realisations, etc.).

The purpose of the technical datasheets is not to cause the educational services to standardise the design of gardens by identifying a priori fittings and materials, but to identify a horizon of possibilities for all the 0-6 educational services which, from 2021 ministerial provisions, require attention. The idea is to offer evidence of a design model that actively includes all the stakeholders of the educational setting and to provide a starting point for the re-organisation of gardens in connection with overall pedagogical planning, leaving behind the logic of having to force individual services and individual administrations to activate legitimisation procedures each time.

Thanks to the implementation of the guidelines and the concurrent use of the DNA (Didactics, Nature, Learning) self-assessment tool, many educational gardens have been redesigned in the services in the area involved over the past



year. This number is of no value in itself, but it is important to emphasise a changing childhood culture that is beginning to consider outdoor education as a daily practice. Starting with school gardens is only a first step towards reconsidering all spaces, in keeping with place-based education (Sobel, 2004) and recognising the value of place and territory as a primary source of stimuli for authentic and engaging learning and fundamental ingredients for laying the foundations for an education for sustainability that starts with childcare services.

## Discussion

In Italy, outdoor education was only mentioned in policy documents in 2021 and 2022. The «pioneering» experiences and the studies on the subject, which are now numerous in the national context, clearly highlight the need to bring the educational experience back to a meaningful whole, as indicated among the aims of and as repeatedly emphasised by the National Guidelines (MIUR, 2012, 2018). There are now many international publications (Fien, 1993; Priest, 1986; Thomashow, 1996; Wilson, 1985; Humberstone, Prince & Henderson, 2015; Stevenson, 2007; Davis & Elliott, 2014; Louv, 2006) highlighting the reasons and motives for designing and implementing outdoor experiences and inviting reflection on the importance of rebalancing the relationship between «children and nature», in order to achieve ECEfs goals.

The quality of outdoor educational processes is strictly connected to the quality design of outdoor spaces, which in turn depends on the involvement of all the participants who use those spaces, so that it can be co-designed and participated in by all. The shared design proposed by the guidelines has the great value of having put the voice of the children back at the centre through intentional and coordinated observational practices and by listening to the voices of the interlocutors who animate the educational services every day, as well as those outside.

As several international studies have shown, the key to the success of pedagogical experimentation initiatives capable of generating educational and social innovation lies precisely in being able to activate — and make sustainable in the long term — mutual interdependence between top-down oriented reform processes and bottom-up transformative processes (Milotay, 2016).

In order to consider outdoor spaces as educational as indoor spaces, it is necessary to activate participatory design processes, involving all stakeholders and those professionals who have a different perspective (for example, environmental educators who work to protect biodiversity, green space management technicians and the municipal administration who ensure their safety, and environmental architects who know how to move around spaces more efficiently) without forgetting the demand to relate those spaces to the needs and interests of the

children who experience them on a daily basis. This is why the concepts of flexibility and co-construction cannot but guide the design, maintenance, and care of spaces. The physical environment provides one tangible arena within which to reconsider the views and experiences of others. These considerations are at the heart of participatory design. This brings us to the wider questions about the nature of democratic practice. Children and those who share the space in which they learn, can be part of this dialogue (Clark, 2010).

The international literature reminds us of the importance of play in nature as a valuable contribution in terms of sustainability, applied knowledge, dispositions, skills and applications (Ernst & Burcak, 2019). In the Italian context, educational gardens could represent a daily opportunity to relate to nature and the environment. If it is possible to recognise play in nature as an effective ECEfs approach, it is necessary to support operators in increasing play in nature in order to promote sustainable practices (Ernst et al., 2021). Outdoor spaces, in this direction, are to be understood as physical and imaginary spaces in which we can cultivate closeness with the environment and our relationship with others in an inclusive and democratic dimension (Schenetti & Petrucci, 2022), necessary for promoting an ecological education oriented towards sustainability and citizenship.

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