# The Schoolyard as a Teachable Space: A Research-Training Project with Teachers and Parents

#### Andrea Pintus and Laura Landi

University of Parma, andrea.pintus@unipr.it University of Modena and Reggio Emilia, Laura.landi@unimore.it

ABSTRACT: The COVID-19 pandemic forced schools to reorganize. By and large Italian schools were not ready for online didactic. Teachers had to learn tools and reinvent their teaching rapidly and without a clear institutional mandate. While this process proved to be extremely stressful, it also fostered a greater sense of agency, independency, empowerment in teachers (Jones, Harris, 2014). It also consolidated informal professional learning communities (Watkins, 2005). These gains are proving to be lasting and are bridging across different sectors. In summer 2020 teachers at a primary school in Reggio Emilia (Italy), started a deep reflection on the new school year and how to make the best of the difficult and uncertain situation ahead of them. More specifically, the schoolyard was identified as a 'teachable space' that is a healthy environment, given the pandemic, where teachers can extend classroom learning to natural and authentic environments (Feille, 2019). Teachers had no lasting experience on outdoor education (Humbestone et al., 2016), so they reached out to outside experts (environmental educators and researchers). A research-training project (Asquini, 2018) has been structured and is currently on the way to redesign the schoolyard on the basis of the educational potentials highlighted in the literature and in the training path itself. This study refers a preliminary account of this process that involved both the teachers and the parents of the school. It will present: the documentation of the process of co-designing; the results of a survey, analyzing teachers' perceived self-efficacy (Glackin, Hohenstein, 2018) and believes regarding outdoor education before the project started; the presentation of the reflective notebooks that accompany the teachers throughout the training meetings (Moon, 2003).

**KEYWORDS**: Outdoor education, Schoolyard, Research-training, Professional development

# Introduction: Teaching out-of-doors during and after the COVID-19 pandemic

The COVID-19 pandemic forced schools to reorganize. Especially in the first phase of the health emergency (March-June 2020) it required new

We would like to thank the principal, teachers and parents from Scuola Primaria Renzo Pezzani (Reggio Emilia, Italy) involved in the research. We are particularly grateful to Fabio Guglielmi (environmental educator at Ecosapiens, Reggio Emilia) for his invaluable contributions at multiple stages of this project and, consequently, in the development of this paper.

781

distancing rules and activated a fast search for new spaces and technological solutions. Teachers had to reinvent their way of teaching rapidly. Since this scenario proved to be extremely stressful, it also can be considered as a period of intense professional growth, that fostered a greater sense of agency and empowerment in teachers (Nigris *et al.*, 2020).

An example of this process of both organizational change and professional development (Jones, Harris, 2014), is the project presented in this paper.

In the summer of 2020 teachers at the primary school Renzo Pezzani in Reggio Emilia (Italy), started a deep reflection on how to make the best of the difficult and uncertain situation they had ahead of them.

As in many other schools, they focused on so called 'outdoor education' (OE) (Humberstone *et al.*, 2015); more specifically the outdoor environment immediately surrounding the school: the schoolyard and the nearby public parks, considered as accessible and healthy 'teachable spaces', where they could extend classroom activities (Feille, 2019).

Priest (1986, 13-14) suggest that OE is to be defined as «an experiential process of learning by doing, which takes place primarily through exposure to the out-of-doors. In OE the emphasis for the subject of learning is placed on relationships, relationships concerning people and natural resources».

Donaldson and Donaldson (1958, 17) defined outdoor education (OE) as «education in, about, and for the outdoors». This idea allows to identify the large number of 'settings' of OE (e.g. school yard, parks in the city, forest in the wilderness), the necessity to put learning processes 'outside' and the purpose of sustaining learning processes for the sake of the ecosystem (Pintus *et al.*, 2019).

#### 1. A teacher research for professional development

Since teachers in the school had no lasting experience of OE they reached out to outside experts, environmental educators and university researchers.

Acknowledging that the teachers' professional development is better realized within a community of practice (Wenger, 1998), instead of providing theoretical seminars on outdoor education or environmental education, a project group was established, consisting of both teachers and researchers. The group co-designed a training path through shared theoretical and practical knowledge along with guidance for research, reflection, and collaboration. The main goals of the program were:

- to develop instructional competencies regarding the outdoor spaces;
- to re-design the schoolyard, together with all stakeholders, based on the educational potentials highlighted in the literature (Canning, 2010; Chawla, 2015) and discovered through the training path itself.

The program has a teacher research for professional development informed by the 'Ricerca-Formazione' (*Research-Training*) approach (R-F) developed by Centre for Educational Research on Teachers as Professionals (CERTP)<sup>1</sup>. R-F is an approach to enquiry that resembles closely the better-known Participatory Action Research (PAR) (Reason, Bradbury, 2008), namely an empirical research that takes place in the field of teachers' professional development, and where researchers and teachers share the same goals of institutional changes through the research itself (Asquini, 2018).

#### 2. Methods

Approximately 50% of the schoolteachers (N = 19) participated in the whole program (seniority = 1-38 years, M = 17,44; SD = 12,06).

A first open seminar for teachers and parents was organized in order to define some keywords and topics concerning OE; then, in each of the planned encounters with the teachers, some tools, both quantitative (questionnaire) and qualitative (logbooks, self-training/focus group), were administered to collect information about their practices and beliefs.

More specifically, at the beginning of the 1<sup>st</sup> and at the end of the last encounter a questionnaire was administered. Teachers had to rank their 'confidence' or 'perceived self-efficacy' on a 10point scale (1 being the lowest), to carry out educational activities in 3 specific spaces/environments: the schoolyard, the surrounding parks and the urban public spaces. In the 1<sup>st</sup> questionnaire the frequency with which teachers carried out activities in these particular learning environments was also collected<sup>2</sup>.

Self-efficacy, defined as a judgment or an individual belief in one's own capabilities to perform a specific task (Bandura, 1997), has been affirmed as an important construct for analysing the quality of professionals, including teachers (Pintus et al. 2021). Self-efficacy plays an important role in human functioning because an individual's self-referential thoughts greatly affect their behaviour.

Similarly to the method suggested by Glackin and Hohenstein (2018), at the end of each of the professional development sessions, teachers were asked to reflect on ideas and practices experienced/suggested, and to answer two open questions concerning their future development/teaching, in terms of both strengths/opportunities and weaknesses/threats.

https://centri.unibo.it/crespi/it

<sup>2</sup> Teachers had to answer: «H

<sup>&</sup>lt;sup>1</sup> Centro di Ricerca Educativa Sulla Professionalità dell'Insegnante (CRESPI): https://centri.unibo.it/crespi/it

<sup>&</sup>lt;sup>2</sup> Teachers had to answer: «How often have you performed these tasks in the following spaces/environments?». Alternative choices: 'Never', 'Sometimes', 'Almost all the time'; 'Always'.

### 3. Practices and beliefs

#### 3.1. Practices

Overall, most of the teachers did not have the habit to use the outdoor environment for learning activities<sup>3</sup>: the 32% experience the outdoor mainly during school trips and the 37% approximately once a month. Some interesting difference emerged comparing specific nearby outdoor spaces (Tab. 1)

TAB. 1. How often teachers perform learning activities in outdoor spaces: N (%)

	Schoolyard	Nearby parks	Neighbourhood	City centre
Never	7 (37)	12 (63)	11 (58)	15 (79)
Sometimes	8 (41)	7 (37)	7 (37)	4 (21)
Almost all the time	2 (11)		1 (5)	
Always	2 (11)			

#### 3.2. Beliefs

Initially, teachers reported to be moderately more confident regarding the schoolyard (M = 6,42; SD = 2,29) than the surrounding public parks (M = 5,11; SD = 2,05), and barely confident at all regarding other urban public spaces (M = 4,68; SD = 2,21).

At the end of the research-training, the teachers perceived self-esteem increased concerning all the three kinds of environment, even if this improvement resulted statistically significant only regarding the surrounding parks (F (1, 31) = 5,97; p < 0,05) (Tab. 2)

TAB. 2. Perceived self-efficacy: M (SD)

	At the beginning	At the end of the training path
Schoolyard	6,42 (2,29)	7,57 (1,47)
Surrounding parks	5,11 (2,05)	6,79 (1,80)
Urban public spaces	4,68 (2,21)	5,86 (2,28)

# 4. Project roadmap

# 4.1. Teachers' training

After the first open seminar in December 2020, involving parents, teachers and educators, the training took two different paths. Teachers had 2 outdoor training sessions in February 2021, planning to carry out outdoor activities in their classes in March. Aims of the training were:

1. to support teachers' decision to implement non-standardized outdoor activities by presenting opportunities, analysing risks, and putting them into perspective

<sup>&</sup>lt;sup>3</sup> Teachers had to answer: «How often do you propose outdoor activities to your classes/groups?». Alternative choices: «Never», «Mainly during school trips», «About (Roughly?) once a month», «Several times a month», «Several times a week».

2. to define some of the characteristics of effective OE: regular, long-term projects; multiple languages; creativity; value of routines and reflective moments (e.g., circle-time); embodied learning.

Yet, schools closed for a month due to the COVID-19 pandemic and this caused a delay of the whole process. Nonetheless 15 out of 19 teachers implemented various types of activities with 7 class-groups. The self-training session, to discuss class experiences, originally scheduled for April, took place on May 26th, thus postponing the rest of the project to next year.

## 4.2. Parents' and children's outings

In its preparatory work the R-F group had identified parents' training as a key part of the collective schoolyard designing process. Teachers considered parents' training instrumental to promote OE opportunities and potentials and increase perception of each family as part of a school and a learning community. This idea matches the findings of different research (Flecha, 2014; Bartee, George, 2019). Flecha qualifies community involvement in school through 5 different categories. We focus here on what he defines as 'decisive', where parents are involved in school's decision-making processes and 'educative', where there is the creation of common cultural awareness through educational programs involving the whole community at different levels. These two approaches, that we are applying in this project, have shown to be more effective in promoting social cohesion and pupils' academic success (Flecha, 2014; Scanagatta, Maccarini, 2009; Bartee, George, 2019). Being part of a common educational process and being involved in decision helps reflectiveness and awareness in parents' participation, supports collaborative and reciprocal versus individual and single child-focused actions and promotes a more cohesive and collaborative school environment (Flecha, 2014).

60 families participated to a 2-hours long outing in different public parks, divided into groups of 20 to 25 participants. These experiences were led by an environmental educator and teachers were also able to attend. These families could experience hands-on outdoor activities, within a community of learners. They could also witness children's engagement.

### 5. Reflections and changes triggered by the project

### 5.1 Parents' involvement

The considerations presented in this paragraph were collected through observation, informal interactions with parents and teachers' reflections during the focus group.

Parents, by and large, let themselves be practically involved, expressed great appreciation for the opportunity and tried to enrol to more than one session. 14 participated actively to the first schoolyard co-designing

meeting, 10 more have given their availability for the co-designing phase, while many others intend to actively work in the schoolyard.

Teachers report great both active and passive support by parents on OE with their class group. First of all, there have been none of the usual complaints for dirty or damaged clothing, for scratches or bruises, for outings in wet or cold weather. According to the educators, the COVID-19 pandemic has fostered this great shift in parents' attitude. Yet there is probably more. The widespread training organized by the school, has certainly helped. Parents were surprised of their children involvement in the activities and the level of attention and engagement shown, also by children with learning disabilities. Moreover, pupils bringing home enthusiasm, new ideas, tails of new experiences, has had a great influence on parents' mentality. In most teachers' mind, it is key not to lose momentum. Parents have also reported great appreciation of teachers' new didactical approach also during parents-teachers' meetings. Complaints have come from those parents, whose children have done less outdoor activities.

# 5.2. Teachers' reactions and changes in didactic

We will here a qualitative analysis based on teachers' response to the questionnaires<sup>4</sup>, their logbooks<sup>5</sup>, and their contribution to training and during the focus group<sup>6</sup>.

Teachers engaged in the process had already opinions on opportunities and threats OE offered. In the logbooks written after the first meeting they shared them. Here a summary of the opportunities that emerged: engaging pupils in pleasant, learning fostering activities (5 responses out of 19 participating teachers), providing opportunities for interdisciplinary discourse (N=5), providing a learning environment that fostered moving from real life experience to abstraction (N=3) and offering relational, emotional, cognitive experiences (N=3). As for the potential threats teachers emphasized: outdoor activities as potentially distractive and lacking focus (N=5), possibility of loosing control of class behavior (N=2), difficulties in reaching learning objectives with outdoor activities (N=2), organizational problems such as need for teacher pairing to grant safety (N==2).

Experimenting different outdoor activities in their classes offered teachers the opportunity to reflect and modulate their actions,

\_

<sup>&</sup>lt;sup>4</sup> Initial and final questionnaires included two open-ended questions: 1. which potentialities and possibilities do you see for your daily didactical approach? 2. And which threats and obstacles?

<sup>&</sup>lt;sup>5</sup> The logbook structure comprised 2 questions: 1. Thinking of today's training/the outdoor activity you have carried out in class; which potentialities and possibilities do you see for your daily didactical approach? 2. And which threats and obstacles?

<sup>&</sup>lt;sup>6</sup> The self-training /focus group dealt with 3 different questions: 1. How can teachers share the meanings of an OE project? How can they involve actors external to the class (parents, other colleagues, the principal) in a OE project? Which actions and narratives are more effective? 2. How does the class get ready for outdoor activities? What kind of tools and routines should be put in place? 3. What are my needs for future training?

reconsidering threats and opportunities of outdoor education. During the focus group/self-training session at the end of May, many of their original ideas, especially concerning threats, had changed.

The role of routine and slower passed activities in helping students staying focused, emerged. These elements, valued by literature (Zavalloni, 2009) are often overseen by teachers. Teachers used them consciously, remodelling activities based on the observation of what worked and what did not. For example, activities such as preparing an outdoor kit for every student, refreshing memory on the task at hand and the rules to be respected outdoor, a circle time as first outdoor moment, proved to be effective allies, triggering pupils' attention and engagement. Promising to give time for outside playing after completing the task, not so much. For most teachers it only led to pupils' speeding up activities to have more time for free playing.

Teachers made other discoveries. In the words of one teacher: «Changing environment brings new stimuli to creativity»<sup>7</sup>. This result came with little surprise. Yet the repetition of activities during multiple outings focusing on a creative production (poetry, drawing) had the beneficial and unforeseen side effect to foster students' observation of seasonal changes. Most teachers had tried before to engage students on this type of observation with very little results. They were surprised to realize how much providing a strong creative focus to students would allow them to observe and not just see and to put seasonal changes into perspective.

Teachers were also surprised because the richness of outdoor stimulus, when intentionally used and included in the didactical action, would help rather than inhibit inclusion and focus. The continuous connection to the real world would foster divergent thinking and offer to less prone to traditional class work students the opportunity to emerge. «Changing setting, namely the environment and slowing activities pace, and requesting students to do things, such as drawing a tree, that they give for granted, students can relax and allow hidden abilities, to emerge. Often to their own surprise»<sup>8</sup>.

Many teachers continued engaged students in OE for the benefit they saw in the relationships. Pupils could work in group while they could not do it in class due to pandemic restrictions. The quality of this work was also different. Outdoor there were no bystanders because everybody had a task. Every student could contribute with his/her different competences, allowing for a richer exchange than the one usually witnessed in class.

When considering threats, teachers still mentioned safety and organizational procedures, but new consideration emerged. «It is a different didactic, that uses less notebooks, that leads to formalization after a longer and richer experiential process». While teachers are aware

787

<sup>&</sup>lt;sup>7</sup> Focus group discussion.

<sup>&</sup>lt;sup>8</sup> Teachers S. and L. logbook after class activity.

<sup>&</sup>lt;sup>9</sup> Focus group discussion.

that this longer process grants deeper learning, they also realize the need to share these considerations with parents, who might be concerned looking for students progresses on notebooks and not seeing any.

During the last meeting we collected teachers' ideas of their professional development needs Not surprisingly all participants want more practical activities to experience in class. Yet only 3 of them requested to be presented with ideas. There were: 4 requests for a wide bibliography as a base for self-training; 7 asked for further experiencing outdoor praxis, even co-designed by the teachers' group; 2 wanted to deepen knowledge of OE tools; while 1 specifically asked for broadening knowledge of opportunities offered by the neighborhood.

#### Conclusion

By and large we could collect signs of a shift in teachers' mentality: moving away from the need of a perfectly controllable environment to the opportunities and risks offered by the unforeseen. «Finally, children are active protagonist of their learning process rather than passive recipients of teachers' actions». «The outdoor education brings new value and meaning to each child's participation to school activities and enhances their attention span»<sup>10</sup>. The school immediately surroundings, especially the schoolyard and the nearby public parks, were rediscovered as accessible and healthy 'teachable spaces', with great potentials. The environment potential has allowed teacher to witness the power of learning-by-doing «Concrete and real action makes for deeper and longer lasting learning»<sup>11</sup>. This is proving influential to their attitude both in- and out-doors.

Throughout the project a greater sense of agency and empowerment in teachers has emerged. While this is stronger for activities carried out in parks and the schoolyard, further training and experience could yield results also regarding overall urban public spaces. Th R-F approach was one of the key components for this change, confirming the power of reflection and the need for professional development to take place within a community.

The emphasis on relationships, relationships concerning people and natural resources, that emerges naturally during OE, has caught teachers' attention and interest. Interestingly enough, teachers have placed more emphasis on activities fostering both disciplinary and transdisciplinary competences and less on promoting environmental awareness. This unexpected result could be further analysed in the future.

At the end of this first year we can draw some preliminary conclusions. This project confirms that R-F approach, based on collective research and

<sup>&</sup>lt;sup>10</sup> Final questionnaire.

<sup>&</sup>lt;sup>11</sup> Focus group discussion.

self and group reflection, fosters visible and lasting changes in posture, didactic and teachers' confidence.

The school immediate surroundings are comfortable and proximal teachable space. They provide a balance between new challenges and known variables, that can push teachers' themselves, as Vygotski would say, along their area of proximal development, producing deeper understanding of students' potential, didactic opportunities, ow to use the environment intentionally. These new understandings can inform teachers' professional development bringing indoor new didactic experiences.

Teachers have also discovered new allies along this path. Parents have shown support and interest, have participated to the new opportunities and want to be involved in this collective reflection. This involvement used to make teachers uncomfortable in the past. Yet the pandemic environment has helped moving beyond this traditional attitude and see parents' involvement not just as a potential problem, but also as an opportunity. Opportunity for coherent actions between school and families, for greater resources, for support.

#### References

- Asquini, G. (2018). La Ricerca-Formazione, Milan, Franco Angeli.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*, New York, W.H. Freeman and Company.
- Bartee RoSusan, D., George, P. (2019). *Contemporary Perspectives on Social Capital in Educational Contexts*, Charlotte, NC, Information Age Publishing
- Canning, N. (2010). «The influence of the outdoor environment: den-making in three different contexts», *European Early Childhood Education Research Journal*, 18, 555-66.
- Chawla, L. (2015). «Benefits of nature contact for children», *Journal of Planning Literature*, 30, (4), 433-52.
- Donaldson, G. W., Donaldson L. E. (1958). «Outdoor Education; A Definition», Journal of Health, Physical Education, Recreation, 29 (5), 17-63.
- Flecha, R. (2014). Successful educational actions for inclusion and social cohesion in Europe, Singapore, Springer.
- Glackin, M., Hohenstein, J. (2018). «Teachers' self-efficacy: progressing qualitative analysis», *International Journal of Research and Method in Education*, 41 (3), 271-90.
- Humbestone, B., Prince, H., Henderson, K.A. (2016). *International handbook of outdoor studies*, London, Routledge.
- Jones, M., Harris, A. (2014). «Principals leading successful organisational change: Building social capital through disciplined professional collaboration», *Journal of Organizational Change Management*, 27, (3). 473-485.
- Feille, K. (2019). «A Framework for the Development of Schoolyard Pedagogy», *Research in Science Education*, 1-18.

- Pintus, A., Antonietti, M., Cardarello, R. (2019). «Education in the City: Young children, Public Spaces and Participation», *Proceedings of the 1st International Conference of the Journal Scuola Democratica 'Education and post democracy', Politics, Citizenship, Diversity and Inclusion*, Rome, Associazione Per Scuola Democratica, pp. 63-8.
- Pintus, A., Bertolini, C., Scipione, L., Antonietti, M. (2021). «Validity and reliability of the Italian version of the Teachers' Sense of Efficacy Scale», *International Journal of Educational Management*.
- Priest, S. (1986). «Redefining Outdoor Education: A Matter of Many Relationships», *The Journal of Environmental Education*, 17 (3), 13-5.
- Reason, P., Bradbury, H. (2008). *The Sage handbook of action research: Participative inquiry and practice*, London, Sage.
- Scanagatta, S., Maccarini, A.M. (2009). L'educazione come capitale sociale; Culture civili e percorsi educativi in Italia, Milan, Franco Angeli
- Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*, New York, Cambridge University Press.
- Zavalloni, G. (2009). *La pedagogia della lumaca. Per una scuola lenta e non violenta*, Bologna, Emi.