

“A Great Living Organism”: A Green Thread in the Pedagogy of Listening

Rosa Buonanno, Massimiliano Massimelli
University of Modena and Reggio Emilia, Modena, Italy

The pedagogy of listening, which originated in the Reggio Emilia approach and is known for the promotion of discussion and democratic participation, serves as the basis for exploring the integration of plants as educational resources. This study aims to elucidate behaviors, methods, and interpretations related to plant-based education through individual interviews with teachers and educators in formal and informal contexts. The interviews will explore the influence of adults on children in relation to plants, examining the impact of time on strategies and the role of listening. The findings could identify factors that influence educators' planning and potentially shift perspectives by recognising plants as “sensitive” entities. Documenting educators' efforts in plant-based education could be crucial, providing a repository of innovative ideas to influence curricula and teaching methods. This study argues for a paradigm shift in education towards the promotion of sustainability and the consideration of the needs of all living beings.

Keywords: pedagogy of listening, formal context, informal context, educational resource, plants, documentation

Introduction

The present study starts from two major assumptions: First, the pedagogy of listening is a powerful educational “tool” which serves as a solid and strong base for democratic and participatory education. Second, plants and trees recently became a common resource in educational activities. Starting from these recognitions, the aim of this paper is to begin the exploration of the possibilities offered by the pedagogy of listening applied to and with plants and trees in the field of education. Researchers explored the perspectives of educators and teachers with a particular focus the amount of time spent interacting with plants in educational settings, due to the fact that the time is a key factor of the pedagogy of listening (Rinaldi, 2021). Positioned as a preliminary stage, this research assumes the role of an exploratory tool to provide a preliminary basis for more in-depth consideration of these topics, particularly within specific and targeted contexts.

The Pedagogy of Listening

The pedagogy of listening was initiated in the schools of Reggio Emilia, founded after the Second World War by a group of men and women who wanted to give children a new perspective on education and life. A pedagogy of listening (Giudici, 2011; Rinaldi, 2021) was born and developed in Reggio Emilia with the help of Carla Rinaldi. It is an ethic of listening, of welcoming the other. It is a relationship of dialogue and openness to the other. Listening and understanding other's positions and experiences, insofar as they are different from our

Rosa Buonanno, Ph.D., Department of Education and Humanities, University of Modena and Reggio Emilia, Modena, Italy.
Massimiliano Massimelli, Ph.D., Department of Education and Humanities, University of Modena and Reggio Emilia, Modena, Italy.

own, facilitate the construction of a new dialogue. Listening to the other is understood as the other living being. This is also exemplified by the world of plants and how they offer a new educational strategy in the field of education. It stands for the idea of a society in which children are active constructors of their knowledge (Dewey, 2019; Edwards, Gandini, & Forman, 1998). They are fully involved in the exploration of themselves and their environment and are thus able to weigh up and act on their own (Dahlberg, Moss, & Pence, 2013). Children approach various ways of life with a distinct perspective, a perspective rooted in empathy and relational mutual understanding.

Carla Rinaldi defines listening as a sensitivity that connects us to others through relationships. It is part of the knowledge that holds the universe together; listening as a metaphor for sensitive listening with all the senses to other people and other living beings; listening as acceptance and openness to differences, recognising the value of the other's point of view and interpretation; and listening that does not produce answers. It formulates questions (Giudici, 2011; Rinaldi, 2006). Through the pedagogy of listening, pedagogical documentation is born, a very common practice in Reggio Emilia schools that helps to make children's learning process visible (Markström, 2015; Wien, 2011).

Documentation, as it is understood in Reggio Emilia, is not to be confused with “child observation”, or the activity aimed at assessing children's cognitive developments (Dahlberg et al., 2013). Rather, documentation is understood as a way of acting out teaching (Municipality of Reggio Emilia, 2017), through the collection of materials related to ongoing learning processes, in various forms: written notes, video and audio recordings, photos, drawings, and works created by children (Dahlberg et al., 2013; Massimelli, Mineo, & Tucci, 2022), a collective and truly collaborative archive (Buonanno, 2024).

Pedagogical documentation, however, refers as much to the content collected as to the process, which becomes a tool for reflection on pedagogical action by pedagogistas, atelieristas, children, their parents, and citizens. In this sense, documentation provides an opportunity for self-reflexivity by pedagogistas about their being pedagogistas.

Documentation is not neutral, but always partial (Giudici, 2011) insofar as it is not a representation of reality but, in a socio-constructivist perspective, a social construction where the documenter builds up a relationship among the pedagoga, educator, and children, making an arbitrary choice among the many possible ones, a choice that reveals how the image of both child and pedagoga, educator has been constructed (Dahlberg et al., 2013). And in this sense, documentation becomes itself a learning process and the basis for pedagogical relaunches (Rinaldi, 2006).

In summary, the purposes of documentation are:

- (a) giving visibility to learning processes;
- (b) reading, revisiting, and reflecting on the experience;
- (c) providing a valorising look at children's processes and experiences;
- (d) assessing and self-assessing;

(e) with respect to the last two points, it should be emphasized that through documentation, evaluation becomes contextual, that is, related to the context in which the documented experience develops, and it allows the values with which the documenter has interpreted the learning process to be made explicit;

(f) documentation understood in this way, not subsequent to but contextual with the educational experience, generates a sort of spiral movement that holds together observation, documentation, reflection, and re-launching, becoming an essential element of pedagogical design (Giudici, 2011).

Plants as Educational Resources

The 2030 Agenda (Sdg, 2019) is an agenda for action for people, the planet, and prosperity, where the discussion is about the relationship among people, but also the relationship with the planet and the recognition of the importance of different forms of life, the recognition of the importance of biodiversity. From this point of view, we could see plants as a very important link in education, in the understanding of their importance, and in the recognition of them as living beings. In this way, we build a new perception of the environment of the earth and of plants, to teach concepts, such as care, respect, and sensitivity.

Although the value of environmental education is recognised for many years and supported by official government policy statements, there is a significant gap between the two. Policy and practice vary widely, and outcomes vary even more. Research into the effectiveness of climate change education shows that much of it focuses on teaching science alone. It does not develop the full range of skills needed to motivate students to take meaningful action. In order to help students develop the skills necessary to adapt to and minimise the effects of climate change, we need up-to-date and more effective methods. Our tactics should be based on current research on developing skills for work and life, as well as on what is known about promoting deeper learning and developing citizenship (International Commission on the Futures of Education, 2021).

Despite a large body of research confirming the emotional, physical, and cognitive benefits of engaging with the natural environment and plants, whether indoors or outdoors (Aydogan & Cerone, 2021; Barbiero, Berto, Venturella, & Maculan, 2021; Kuo, 2015; Kuo, Barnes, & Jordan, 2019; M. Lee, J. Lee, Park, & Miyazaki, 2015), there is still a lack of teaching examples. This lack highlights the current inadequacy of didactical examples that illustrate the central importance of considering plants as a valuable educational resource. In the realm of educational design, time emerges as a pivotal factor in nurturing a profound connection with educational living beings, specifically plants. The temporality inherent in the process of listening to and learning from plants requires careful consideration in the framework of an educational design that seeks to foster a symbiotic relationship between humans and the plants.

In creating an educational narrative in which time and context play a crucial role, the deliberate allocation of time resources to plants becomes a milestone. It is not simply a matter of incorporating greenery into the educational space. It is a deliberate investment of time and planning to understand, observe, and respond to the dynamic life cycles of plants. This study is a preliminary research aimed at investigating and documenting the behaviors, procedures, and interpretations adopted by educators and teachers, from formal to informal contexts, in relation to the subject of plants. The main objective is to highlight how the pedagogy of listening could influence the methodologies used by teachers when exploring plants as an educational resource, with the overall intention of outlining both the pedagogical quality and the time commitment devoted to this interaction.

Participants and Methodology

The study was carried through a mere qualitative perspective, collecting from a few teachers and educators the first cues to foster broader research on the topic. For this reason, a total of n. 5 semi-structured interviews were conducted with Italian teachers (n. 3) and educators (n. 2). The distinction was intended to investigate both formal and informal settings.

The teacher involved in the study refers to different grades of school, one interview for each grade: preschool, primary, and secondary schools. Interviews served as a crucial means for individuals to articulate their perspectives, experiences, and opinions in a detailed and comprehensive way. They proved invaluable in

exploring personal meanings, perceptions, and experiences, allowing flexibility in framing questions and adapting responses. In addition, interviews were essential for a more in-depth understanding of the themes that were emerging (Alshenqeeti, 2014; Mann, 2016; Seidman, 2006).

Below is the draft structure of the interview:

1. Do you consider plants and trees as an educational resource?
2. If so, how do you consider them when designing activities and educational contexts?
3. Do you “use” plants and trees when you work in your contexts or also outside them (e.g., courtyards, public parks, and nature parks)?
4. In relation to their educational function, how much time do you devote to plants and trees?
5. What educational opportunities do you think plants and trees can offer to children and young people?
6. As an educator/teacher, what are the barriers to the use of plants as an educational resource?
7. In your opinion, is there a need for specific training in order to be able to make use of the educational potential of plants?
8. If not, why not?
9. Do you have anything you would like to say or comment on?

For coding purposes, every interview was transcribed. We searched for commonalities and patterns within and between the interviews based on the ideas and themes that surfaced in the interviews themselves, adhering to the methodological recommendations made by the literature about qualitative research (Maxwell, 2013; H. J. Rubin & I. Rubin, 2012). We therefore established four categories (see Table 1).

Table 1

Categories Emerged From Analysis of the Interviews (Only One Example of the Interviews Is Presented Here for Brevity)

Categories	Function and description	Examples from the interviews ¹
Interdisciplinarity	Whether and in what way they use interdisciplinary approaches	“The potential is significant as it enables the structuring of interdisciplinary work that extends beyond the natural sciences. The topic of plants, for instance, can be seamlessly integrated into disciplines like civic education, nutrition, and geography, providing diverse learning opportunities. This approach may also encompass history, delving into the activities of societies related to plants. In summary, the educational possibilities are expansive and varied”.
Care and time	How much care and time teachers give to plants	“The winning group was awarded a seedling as a prize, and it remained in the classroom until June; during the summer, a student cared for it, bringing it back for the new school year in third grade, showcasing collective commitment to its well-being”.
Contexts	How contexts influence teachers’ teaching strategies in relation to plants	“Under the trees, the surroundings become an educational context and an outdoor workshop. It is a place where we recover what already exists, using elements from the environment, such as the earth, to write, build, trace, and narrate. This space also offers the possibility of bringing in elements from outside”.
Training	The importance for teachers of specific support on the world of plants	“Designing work centered around plants necessitates a reconfiguration not only of the conventional dynamics involving textbooks, students, and teachers but also calls for an approach requiring specific skills attainable through study, not necessarily confined to botany. This design, inherently interdisciplinary, demands time and close collaboration among educators, presenting a substantial challenge”.

¹ All quotes are translated by the authors.

Results and Discussion

The findings highlight the recognition by the educators and teachers interviewed of the central role of plants as an important educational resource, integral to the practice of interdisciplinary approaches. In addition, all respondents recognise plants as living beings that deserve conscientious care. This care extends beyond the realm of human consideration to include the wider natural world (Mortari, 2004).

Interdisciplinarity

The interviews reveal a clear consensus that plants offer diverse educational possibilities across different disciplines. Educators and teachers suggest varied activities, demonstrating the potential for plants to serve as versatile pedagogical tools in the learning process.

Care and Time

The data indicate variations in the temporal investment and relational dynamics that teachers and educators allocate to plants. Furthermore, they offer a diverse array of opportunities for children to engage with plants holistically, encompassing both cognitive and emotional dimensions. Notably, no substantial disparities emerged within this domain when comparing formal and informal educational contexts.

Contexts

In contemplating the theme, they acknowledge the significance of establishing environments that embrace and contemplate the diverse possibilities, questions, and reflections associated with both the surroundings and the individuals present.

Training

The interviews unveiled a requirement for specialized knowledge about plants to enhance the educational potential they offer. This expertise could be imparted either through dedicated educational projects involving specialists, such as biologists, naturalists, and scientific support, or through professional training on the subject.

Educators and teachers, whether in formal or non-formal educational settings, highlight the importance of dedicating time to interact with plants, fostering heightened sensitivity and a deeper understanding of the natural world in ecological role (Demetrio, 2021). This perspective aligns with a central theme of significance—the cultivation of care (Mortari, 2004).

These professionals highlight the establishment of environments that facilitate a meaningful dialogue between plants and their surroundings, adhering to the concept of the third teacher (Malaguzzi cit. in Edwards et al., 1998) and endorsing various expressions of knowledge (Montessori, 2008). Each of these approaches acknowledges the imperative for adequate training to address the subject matter coherently and proficiently. This methodology could be further reinforced through interdisciplinary initiatives and collaboration among different fields of expertise. In conclusion, educators and teachers regard plants as a highly relevant educational resource to be introduced in appropriate contexts, serving as a source of discussion and reflection to enhance existing curricular guidance.

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