“The seed is the heart of the plant”: educational contexts as powerful activators of the relationship between natural and digital

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The aim of this work is to explore the educational space as a place resonating of harmony, beauty and curiosity, a living space (Rinaldi, 2009), where the different proposed activities allow natural learning processes in a multisensory and interactive flow. The space strongly influences human interactions (Danon, 2019), as an active player in the evolutionary and learning process (Fanelli et al., 2006), and as a “third educator” (Edwards et al, 2017) participating in the construction of knowledge. Sustainable Development Goals (Agenda 2030) and the UNESCO report 2021 confirm the importance of adopting different educational strategies to enhance the concept of sustainability. The vast existing literature confirms the interdependence among living beings, the animal and the vegetable worlds, “something you forgot about, precisely because it’s working” (Morton, 2018). Plants, both for their behaviors, analyzed by neurobiology (Mancuso, 2013, Paco Calvo, 2022, Trewavas, 2019), and for the psychophysical wellbeing (Ulrich, 1981) that they transmit, assume a crucial role in learning about vital processes.
In 2019 Fondazione Reggio Children, in collaboration with The LEGO Foundation launched the research project scintillae - play and learning in the digital age, which is also a physical space at the Loris Malaguzzi International Centre based in Reggio Emilia, Italy. Scintillae, gives to children and adults the opportunity to experiment playful learning activities both inter and multidisciplinary. As part of the “Scuola diffusa” project, promoted by Officina Educativa of Reggio Emilia Municipality, scintillae started some collaborations with state primary schools. Co-designing with teachers, pedagogista, educators and researchers, has led to identifying some themes of possible further research starting from the idea of transformation in movement. The investigation of movement went through aspects related to the body, digital tools and plant world, allowing children to explore and make hypotheses on what they could perceive and theorize from their research into these interweavings between digital and analog. This article analyzes what emerged from children’s explorations on the dialog between plants and digital tools. The research has a qualitative approach based on pedagogical documentation which kept track of interpretative processes of children and teachers, continuously reflecting on their learnings through different languages: writing, graphics, images, texts, stories, videos. These traces tell, narrate and give value to constant research, so that the elements can emerge in a “generative encounter” (Guerra, 2020). A kind of documentation supporting learning as it makes visible how children perceive the complexity of the vital network and strengthen their innate emotional, social and ecological intelligence (Goleman et al., 2017). This experimentation has highlighted how a “rich” context can encourage childrens’ argumentative ability and their natural scientific thinking on their own evolutionary processes (Gardner, 2010; Corridoni, 2019). The results show how children understand, helped by digital tools, the vital processes of plants and the similarities between living beings. This paper would like to activate new areas of investigation on plants’ slow growing processes and interdependent networks and open up the possibility to deepen ecological themes in Italian school curricula.

Keywords: learning context, interdependence, documentation, plants, wellbeing