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#### Abstract

A new ecological culture puts Earth and Nature – and not only human beings – at the center of Planet's life. This change of perspective should be accomplished at every level: law, politics, economy, education. At an educational level, this choice concerns lifelong education since the earliest stages of life, and involves the development of more holistic mind-sets based on: (a) knowledge and understanding of phenomena grasped in their relations to one another (Dewey, 1933; Vygotsky, 1930, 1934) that connect human beings and the being of the Planet; (b) an ethics of respect and care (Capra, 1997), involving empathy with Nature, pro-sociality and cooperation, storytelling, reflective thinking, mindful understanding of emotions (Bruner, 1997). To support this view, I present an educational research design as an example of an experience in the field. Research with children (Kirk, 2007; Christensen-Allison, 2008; Moore et al., 2008; Mortari, 2009) is the methodology used. Such approach is evidence-based (Jean-Luc Maron, 2001; Berg et al., 2008) within the epistemological framework of the naturalistic inquiry (Erlandson et al., 1993; Woodhead, 1996; Graue, Walsh, 1998; Greig, Tailor, 1998; Punch, 2002; Mortari, 2002, 2004, 2007, 2009). Analysis will include children's thoughts regarding their weekly experience with nature (Leopold, 1970; Tanner, 1980; Thoreau, 1962; Chawla, 1998; Smith, Dunca, Marshall, 2005; Mortari, 2017; Dozza, 2018) that is part of the school curriculum. Preliminary findings suggest that by perceiving Nature through all their senses and by reflecting on their emotional connection with Nature, children acquire a new more systemic awareness and begin to feel as active agents of Earth.

Keywords: Sustainable Education, Lifelong Learning, Research with Children.

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#### **1. A partial Introduction**

The assumptions on which the education of younger generations was based until about a decade ago have fallen into a crisis that appears to be irreversible. It is a crisis that invests citizenship, welfare and labour market as a whole.

The technological revolution and the evident "economic deviations" have radically changed the aims, use and value of cognitive and professional repertoires. They have made workers more vulnerable to the changes in labour organization. Most importantly, they have had an enormous, distorting influence on the perception of certainty of the future, on the systems of values and on the lifestyles of entire generations and of most of the population.

The way we perceive and represent the concepts of *time*, *identity* and *relations* (rules, power relationships) is also changing.

Regarding *time*, we can say that communication between our experience of the present and the past and our outlook of the future has irreparably broken down. We live in a nowist, hurried and competitive culture (Bertman, 1998; Kundera, 1995). Time is "pointillist" (Bauman, 2009, p. 56), shattered into a multitude of isolated shards, capable of disabling the past through an infinite succession of "new beginnings".

The *Identity* itself has undergone a process of "pointillisation", to the extent that many now display it as an attribute of the moment.

The *Economy* is dominated by excess and waste, dissatisfaction, instant or programmed obsolescence. The lives of migrants, refugees, outcasts have come to be <</discarded lives>>, globalisation's waste (Contini, 2009; Bauman, 2004).

Indeed, the entire Earth is subject to waste and predation. And Governments are seen as succumbing to economic reason. Individuals risk to identify themselves as "consumers", rather than as "citizens". Many have turned away from politics, *as if* their freedom as citizens had been conquered once and for all, and *as if* democracy and the *Planet's being* (Hillman, 1997) could survive for long in the aftermath of political inactivity and indifference.

International *legislation* itself – Agreements, Resolutions, Treaties – is uncertain, because it originates from a balance of power between subjects with different natures and orientations.

Within the context of a planetary globalisation based on bonds of dependency and/or interdependency that can induce mutual development and wellbeing, but also vulnerability and crisis (Bauman, 2004), lifelong learning, the valorisation of the cultural and professional heritage, and *humanitas*, perhaps represent the main strategy for redirecting civil, cultural, social and productive processes towards a democratic and sustainable development.

## 2. A neo-paradigm: "Gaia Hipothesis"

According to Lovelock's "Gaia hypothesis" (1979), the Earth is a living organism capable of self-regulation, whose geophysical components support suitable conditions for life thanks to the behaviour and action of living plant and animal organisms. The systemic theories of the 20<sup>th</sup> century have revolutionised the scientific thought in the Western World by offering an interpretation of the Earth-Nature system that is ecosystemic and contextual rather than mechanistic and reductionist.

The core debate on the co-construction of an ecological neo-paradigm requires a transition from a human-centric ethical system, which assigns nature an instrumental value measurable in purely economic terms, to an eco-centric ethics based on the acknowledgement of its intrinsic value. This is a redefinition of the intentional quality of human and scientific intervention as instruments for improving the living conditions of the Community as a whole through new models for "inhabiting the Earth" (Farnè, 2017; Iavarone, Malavasi, Orefice, Pinto Minerva, 2017; Malavasi, 2015, 2008; Frabboni, Pinto Minerva, 2014; Mortari, 2009a; 2003; Galeri, 2003). It envisions a utopian 'Democracy of the Earth', legitimising the restraint of the interests of specific groups for the good of the entire Community through a redefinition of the intentional quality of human and scientific intervention (Cullinan, 2012; Diamond, 2005; Iovino, 2003; Tainer, 1988).

However, despite the international conventions and declarations – Stockholm/1972, Rio/1992, Kyoto/1997, Copenhagen/2009, Sendai/2015, and Paris/2016 – a new ecological culture rarely seems able to significantly influence the actions of the competent authorities in this field.

## 3. Sustainable development and education for the whole life

The most widespread and quoted definition of *sustainable development* is contained in the Bruntland Report on *Our Common Future* (WCED, 1987): <<Sustainable development is the kind of development that meets the needs of the present without compromising the ability of future generations to meet their own needs>>.

The issue of sustainability in the Man-Earth-Nature relationship has been addressed, in the field of education, with a number of different – albeit related – terms and concepts (Stevenson, 2007; Sterling, 2006): environmental education, education for sustainable development, education for sustainability, sustainable education.



The vision that underpins the concept of sustainable education envisages sustainability as a theoretical-methodological framework that consistently moulds, based on a sort of dynamic causality, the idea of school/educational contexts, educational actors, decisions relating to the educational setting, school curriculum and teaching activities (Calvano, 2017; Wals, Corconan 2012; Malavasi, 2010, 2003). It shares the perspective of lifelong learning. A natural and social process that begins in the first days of life (or even earlier) and continues until senility. In short, we can say that it is a three-dimensional concept: Learning through/in life (*lifelong learning*); Learning in the various educational contexts - formal, non-formal, informal (lifewide *learning*); Learning in depth or deep-rooted learning (*lifedeep learning*). The last dimension of the concept shifts the focus of debate and of research on the contextual, intra-subjective and emotional aspects that concur in the construction of reality at the individual and social level and that involve the capacity to relate deeply and critically with one's self - one's "generational roots" and cultural appartenances - and with others. It regards on the one hand the descriptive aspects of personal education and the training opportunities starting with school and family and widening out to the many opportunities in loco and in the life and labour places, and on the other hand the affective/emotional processes that create the anchors of sense at a personal and social level, according to the meaning of *lifedeep learning*<sup>1</sup>.

<sup>&</sup>lt;sup>1</sup> The term and concept 'lifedeep' indicates a process of identification, construction, valorisation of one's personal identity, which takes on the value of deep learning.

In the literature we find only a few attempts to define lifedeep learning. It is considered a new term that describes insights and in-depth evaluations that reinforce the self-realisation of personality in a globalised world where the capacity for in-depth comprehension is essential to acquiring international harmony and peace (Boucouvales, 2002; Longworth, 2003; Banks et al., 2007; Derrick, Howard, Field & Lavender, 2010). It is an intentional process in which language, speeches and religious, moral, ethical and social values, drop by drop, day by day, orient a person's beliefs, the ways in which he/she faces or shirks challenges and change, a person's opinion of one's self and of others, the encounter, the search for an agreement, the game of life (Stevens & Bransford, 2007; Demetrio, 2009). It is a process that creates a 'matrix' that is transmitted by the group to the individual (Foulkes, 1957) and, we may add, from one generation to the next (Hillman, 1999; Lo Sapio, 2007). A person's learning and education increases and transforms during his or her lifetime (*lifelong*), positioning itself in that vital space that it manages to create along the way in the various formal, non-formal and informal (*lifewide*)

The cognitive and affective-emotional dimensions – interconnected the one in the others and the one for the others – form the foundations on which to co-build, individually and as a community, stories and identities with a "bond" and "lifedeep learning" value. These foundations, real clusters of languages, skills-emotions-meanings-values, create "matrices" that can be transmitted from the group to the individual and from generation to generation (Dozza, 2012; Karlsson & Kjisik, 2011; CONFINTEA VI, 2010; Demetrio, 2009; West-Burnham & Coates, 2005; Foulkes, 1957).

Lifelong Education and Learning is a process *in progress*, unfinished, open-ended. It must become a <<learning process focused on the ideals and principles of sustainability>> (Wals, 2009, p. 26), capable of changing education from within, integrating sustainability not just in the curricula, also in the contexts of daily life and learning. It should integrate practice and theory, and include participatory and community-centred approaches, aimed both at understanding the interconnections and interdependence existing within the context of the planet, and at redefining concepts such as:

- "respect for nature";

- "responsibility to rebuild the *public space*" where men and women may negotiate individual

and common rights and defend them;

- "responsible self-limitation" or negotiate human rights (healthy environment, communication, intergenerational equality and sustainability, water.

Above all, an important purpose of the *empowerment* path is to rebuild the *public* space. <<In short, one of the decisive stakes of lifelong education aimed at 'empowerment' is the rebuilding of the now increasingly deserted public space, where men and women may engage in a continuous translation between individual and common, private and communal interests, rights and duties.>> (Bauman, 2009, p. 89). Men and women are required not just to make choices and act accordingly, but, above all, to defend such choices by strengthening cohesion, awareness and social responsibility as fundamental social and political goals (Rychen, 2004). The public space is the place for negotiating *third-generation human rights*, according to which the elements of nature are legal entities and not just resources at the service of mankind, including the awareness that the rights of the Earth also include the rights of human beings coming from Mother Earth. We refer here to the subdivision (initially proposed in 1979 by the Czech jurist Karel Vasak at the International Institute of Human Rights in Strasbourg) of human rights into three generations of rights that follow the three watchwords of the French Revolution, i.e. Liberty, Equality, Fraternity: (a) first-generation rights, dealing essentially with liberty and participation in political life (freedom of speech, freedom of religion, voting rights, the right to a fair trial); (b) second-generation rights, which began to be recognised by governments after World War II, related to *equality* (economic, social, cultural); (c) *third-generation rights*, housing an extremely broad spectrum of rights: to a healthy environment, to communication, to participation, to cultural heritage, to

educational contexts, all the more when it can count on personal 'roots' at an affective/emotional and cognitive level, and/or on groups, communities, social networks of reference (*lifedeep*).

intergenerational equality and sustainability, and, recently, to water (National Council Forensic, the Ministry of Justice, 2017).

## 4. An educational design

Based on the conceptions illustrated above, we present a research in progress<sup>2</sup>.

# 4.1 Two Questions

- (a) Is it possible to bring the children to perceive the feeling of being part of a dynamic network of relations?
- (b) What are the indicators, if any, of the construction process of an environmental sensitivity, empathy and intelligence?

We have based the research on the assumption that it is generative to

- (a) gain *direct experience in nature*;
- (b) reflect in one's "den" about one's own experiences in nature;
- (c) think about the thoughts in general in/with the class group (Mortari, 2009a, p. 136). The Research Project (a multiple Case Study) includes children aged 4 to 5 in 2 kindergarten sections, and children aged 6 to 7 in two primary school sections (first and second year). The study's cyclic structure – based on the so-called Hermeneutic Circle model – allows applying of flexible educational proposals while keeping in mind logistic, organizational and methodological/educational aspects. The cycle of two – non identical – series is ideal as regards both the verification and validation of a research process balancing between theoretical processing and applicational verification, and the requirements of didactical significativity.

The single Case Study we are presenting regards a primary school, in Bressanone/Brixen (Bolzano/Bozen, North of Italy). The approach is that of 'Research-Action'. The subjects of the study are:

- 20 children, 7 years old, highly heterogeneous in terms of gender, culture/religion, social condition, handicaps;
- class Teachers and Treainee Teachers;
- Researchers (who participate in a non-intrusive manner and without hiding the the role they play);
- Parents in the role of witnesses and critical friends.

# 4.2 What we do in classroom and outdoor?

The "layout" of the educational path was illustrated by Billi, an imaginary character that for the children in first grade acted as a "unifying background" for the scholastic activities. Billi wrote to the children, presenting himself as the "guardian" of thoughts and emotions, and asked them to make a Notebook of "emotioned thoughts" for him. The first activities:

- informal interviews or "statements" made by the researcher/teacher leaving time for relaxed conversation;
- drawings and thoughts on "how do I feel today?";
- house/box of thoughts and emotions: children's writings or drawings that the teacher/researcher uses without revealing the author, to facilitate group conversation;

<sup>&</sup>lt;sup>2</sup> The first section of the project is currently under way (January to May, 2018); the second will be held from January to May, 2019.

- selections of short musical pieces, sounds, colours to be associated with children's experiences; etc.

In a second time, the outings in contact with nature are held on a regular basis (on the same day, every week), in a setting that is carefully chosen by teachers and researchers in terms of quality of experiences:

- leaf collecting, scents, sounds, sensations;
- playing, running, rolling over;
- finding "your own den", namely a place where one can stop and 'think thoughts';
- choose an element of nature and tell "what makes me think" (a technique similar to photolanguage).

#### 4.3 Methodology

The research we are presenting here is considered *evidence-based* (Berg *et alii*, 2008) and falls within the scope of the epistemological *framework* of *naturalistic inquiry* (Mortari, 2003b, 2010, 2014; Punch, 2002; Erlandson *et alii*, 1993).

The methodology used is *Research with Children* (Mortari, 2013, 2009a, 2003a; Christensen, Allison, 2008; Moore, McArthur, Noble-Carr, 2008) or *Childrencentered research*. This approach is coherent with neo-Vygotskjian interactive-constructivist thought, whereby children are considered active subjects and coproducers of thought, capable of contributing in a valid and authentic manner to the educational research (MacNaughton *et alii*, 2007; Darbyshire *et alii*, 2005).

We present a single explorative and descriptive Case Study (CS) (Yin, 2003<sup>3</sup>), part of an inter-disciplinary multiple CS, titled *Visual Storytelling. Research for Children, Comprehension of Emotions* (VISTE), principal investigator Liliana Dozza in cooperation with Alessandro Luigini, Free University of Bolzano/Bozen.

In the preliminary phase, the meetings with the teachers allowed to share the general aims of the study and to get to know the characteristics of the class and the educational choices. It was decided to carry out the actual lessons both in the classroom and "in nature" (in a public park very close to the school). In planning and starting the research study, we have paid great attention to both the educational return and to the good quality of the experiences presented to the children, because although it is true that they are <<a>active and competent>></a>, they are also subjects that are <<vul>

This CS makes use of many investigation techniques and procedures, so as to collect different types of data for triangulation:

*Parents*: (a) Focus Group at the start and at the end of the project; (b) *Anecdotal Records*, i.e. brief descriptions of "short episodes" observed at home: sentences or behaviour relating to the experience under way at school.

Teachers: (a) Interview at the start and at the end of the project; (b) Logbook.

*Intern (trainee Teacher)* and *Researcher*: observation/written description of the experience in the park and in school, noted down at the start, midway through and at the end of the experience itself; logbook and field notes.

*Children*: (a) individual "Den Notebook"; (b) at the start and at the end of the experience, answer to the question: <<If I say the word "park", can you write down the first three words that come into your mind, and why?>> (c) drawing of the park, at the start and at the end of the experience.

*Data analysis Workshop* are envisaged in the course of the research project so as to allow for the interaction of different data analysis and theory construction procedures. In this way, although epistemic principles and a work path have been defined, the method can take shape during the process based on continuous exchange and reflexive dialogue. Obviously, the analysis of the drawings as well as of the interview protocols and Focus Groups envisages the parallel work and exchange of information of two researchers.

#### 4.4 Expected results

We expect to:

- confirm and/or expand our knowledge about the world of the children;
- carry out a critical analysis on the heuristic methods and techniques used.

The knowledge and awareness of the conceptual evolution can be graded via a series of indicators<sup>3</sup>. The comparison of significant experiential situations and active listening will give shape to the process and shall provide data to be used in a descriptive as well as possibly interpretative reading of the CS.

#### 4.5 Early Findings

Preliminary findings suggest that by perceiving Nature through all their senses and by reflecting on their emotional connection with Nature, children acquire a new more systemic awareness and begin to feel as active agents of Earth. The children's competence to feel part of/in the Planet is increasing. It concerns the ability to

- recognize their experiences/emotions;
- express them;
- reflect on them;
  - give value (in some cases, declaring themselves "friends" and "guardians" of the park).

- Explicit signs of change and awareness of this change.

<sup>&</sup>lt;sup>3</sup> In the current phase of the research process, using the literature and the research studies mentioned as reference, we can imagine the following indicators:

<sup>-</sup> Knowledge, sensations, emotions: knowing facts about trees, insects, sounds, colours, surfaces, etc..

<sup>-</sup> Discoveries about life of/in the park and of the "threads" that connect the beings living in the park with us.

<sup>-</sup> Signs of change in the concepts about the park and about nature.

<sup>-</sup> Awareness of this and of the reasons that have brought it about.

<sup>-</sup> Imagining ways of living in contact with nature.

## 5. Building an ecological mindset

In this section we present and discuss the theoretical framework of the proposed research.

## 5.1 A Sustainable Education since the first ages of life. Why so early?

Research, with particular reference to educational neuroscience, suggests that neural plasticity and cognitive modifiability are distinctive traits of the brain at all ages and, in particular, in the early stages of life.

[...] early interpersonal experiences (largely emotional) are able not only to develop cognitive skills, but also to act as regulators of hormones that directly affect genetic transcription, causing certain genes to express themselves and "silencing" other ones. [...] Brain development is largely a process that depends not only on a genetic programme, but also on both positive and negative experience (Oliverio, 2015, pp. 10-11).

The earliest ages of life are a "work in progress", a "proximal developmental area" for future lifetime: infancy and puberty have a key role in formative experience. The basic idea is that the educability of humans calls education: during these stages we must ensure the scaffolging for development and maturation, and developing, in order not to compromise the mind's ability to continue to learn over a lifetime. We *do not need to provide* the full range of competences required for life, but support the conditions for maturing and developing for the future life (Dozza, 2017; Fabbri, 2016).

## 5.2 Which children, which idea of classroom, learning-teaching and of school?

We see each *child*, during his or her growth, as a subject, an active agent of his or her development, as part of <<a transpersonal network with affective-cognitive relevance that is comparable to a magnetic field>> (Foulkes and Anthony, 1991, p. 211). This relational framework is made up of <<vertical>> or family-based networks (connecting three, or even four, generations) and <<horizontal>> networks made up of peer groups in the non-formal and informal contexts of socialisation and education (Bruner, 1999<sup>1</sup>; Pontecorvo, Ajello, Zucchermaglio, 1991<sup>1</sup>; Vygotskij, 1992, 1990).

We think of the *classroom* as a <<community of learners>> and of *learning-teaching* as a process of transformation through participation in significant activities (Rogoff, 1994), in contexts where teachers and children together co-build knowledge processes and experiment forms of meta-cognitive reflection.

We see the *school* as a complex system that should be <<open inside>> and <<open outside>>. We see the natural and urban environments as a huge "outdoor classroom", a "workshop of knowledge" and a "workshop of thought and imagination", an interactive textbook, a field of action and "playground" for the imagination (Frabboni, Pinto Minerva, 2018<sup>4</sup>; Frabboni, Gavioli, Vianello, 1998; Dozza, 2006, 1993; Frabboni, Guerra, 1991).

We see a school that treasures <<not only the natural spaces and the immense biodiversity wealth of flora and fauna, but also the great heritage of monuments and artworks, the intangible heritage of local communities>> (Marchetti, 2012, p. 15).

#### 5.3 How? Based on which educational and teaching project?

Two key challenges for schools:

- lay the foundations for imagining new conceptual "frames";
- experience first hand the ethics of respect and of caring.

In *Experience and Education* (1938) Dewey gives a concise and complete description of the characteristics and qualities of the experiential paths along which to co-build *lifedeep learning*. He writes that the key problem of an education based on experience lies in choosing the type of present experiences that will live fruitfully and creatively in the experiences that follow. Each experience receives something from those that came before it and changes the quality of those that follow (*principle of continuity* and *principle of growth*). Furthermore, the educator – when developing the learning "situations" – must combine the subject with the context within the experience, so that school work be the result of a collective endeavour (*principle of interaction*).

In How We Think (1933), Dewey focuses on the relations between information learned and comprehension.

"Of course, intellectual learning includes the amassing and retention of information. But information is an undigested burden unless it is understood. It is knowledge only as its material is comprehended. And understanding, comprehension means that the various parts of the information acquired are grasped in their relations to one another – a result that is attained only when acquisition is accompanied by constant reflection upon the meaning of what is studied" (Dewey, 1933, pp. 78-79).

In the experiences in natural and cultural contexts as "workshop" of knowledge, in a school making space for knowledge, thought and imagination, school knowledge can once again find its 'soul' and, through a <<returning wave>>, enrich <<the meaning>> of the educational experience inside the school. Experience must be something "more and different" from simple activity.

"Mere activity does not constitute experience. It is dispersive, centrifugal, dissipating. Experience as trying involves change, but change is meaningless transition unless it is consciously connected with the return wave of consequences which flow from it. When an activity is continued *into* the undergoing of consequences, when the change made by action is reflected back into a change made in us, the mere flux is loaded with significance. We learn something" (Dewey, 1916, p. 163)

Experience in a natural and cultural context, far from the frenzy of everyday life, is becoming more and more important. It is important to help them realise that emotions are 'in-between', so to speak, that they flow within one's body like the sap in a plant, that they can be found inside the stories they listen to, as well as outside, in the colours of life (Mortari, 2009a; Smith, Duncan, Marshall, 2005). One can learn

through experience, by listening, taking part in discussions, reading books, and then thinking of one's experiences and feelings, "shadowing" one's emotions and thoughts.

## 5.4 "Feeling-thinking-imagining" is the alphabet for the future

The combinatory process – following the experience accumulation phase and a period of maturation and incubation – can operate by using not only personal experience but also that of others ("crystallised" into stories, fairy tales, scientific descriptions, material and immaterial culture) until it manages to produce something that is actually new.

This results in a two-sided and mutual dependency between imagination and experience, whereby every intuition and discovery has an affective-emotional tone and cognitive depth: the experience (the situational experience and the mediated experience) "feeds" the imagination, and the imagination, in turn, drives the action. We must create the conditions in which the imagination "in thought" and the imagination "in action" (Vygotskij, 1990, pp. 117-142) can amplify the space for free movement and therefore for autonomy between "myself" and the "World" (Winnicott, 1975).

In this way the potential of creative imagination works: the logic order binds with the imaginative disorder to meet requirements, tendencies and desires, as well as the challenges that reality throws us. The perceiving, "motor of imagination" becomes the new alphabet on which to invest in the future: only the "imaginal energies" are able to innovate, to invent, to push the gaze more deeply and further on (Semeraro, 2006).

# 5.5 How? Experiencing ethics of respect and of caring

Experiencing ethics of respect and of caring need:

- empathy, pro-sociality, reflective thought, acknowledgement and comprehension of emotions, telling stories, negotiation of points of view, cooperation (Pinto Minerva, 2017; Gennari, 2017; Mortari, 2013, 2009b; Bruner, 19971);
- *solidarity*, that makes possible empathic experiences and activates participative tension towards others, towards nature, and towards oneself (Frabboni, Pinto Minerva, 2014).

To engage in solidarity means to exchange gifts and opportunities to be shared, acknowledging that "No man is an island. We are bound to each other even if we do not know it" (Tischner, 1981, p. 12).

## 5.6 Caring asks to learn to de-center

The simplest way is to experience (and comprehend) it situationally, through example.

Caring involves learning to come so close as to/so as to hear, think, feel (*as if* one were in another one's shoes) and then move away to think about it. It is a back and forth "movement", a "pendulum movement" that allows one to come close without remaining caught up/stuck/too involved and to move back by just the right

amount to allow one to stop and think. Just like when one observes a painting and comes up close to examine the smaller details, and then moves back to appraise it with an overall view of it as a complex whole. Or like when one is standing in a natural setting and one breathes in, tastes and listens to life, and then one finds one's self in a "den" or a special moment in which one can stop to feel one's emotions and think one's thoughts.

One must allow one's self time: aim is not to solve the problems but to understand them, expanding the space of thought and of action for one's self and for others. Also because, if the project truly regards *caring*, the limit-idea must be that of doing it in a donating fashion, i.e. by creating the conditions in which others (children, adolescents, adults, the elderly) can personally experience the intuition and awareness of being capable of doing it, and have the time to find their way while feeling they have chosen it and gained it autonomously.

#### Conclusion

We have discussed about promoting a *sustainable education* in the first ages of life, especially with regard to experiencing nature, as a lifelong, lifewide, lifedeep learning strategy. We have set out our idea of *child* as an active agent of personnel development, of *classroom* as a Community of learners, of *school* "open inside" and "open outside", of *learning* as a process of transformation through participation in significant activities and sustainable contexts where teachers and children together cobuild knowledge and meta-cognitive reflection: a learning process interested in looking deep, grasping information in their relations, experiencing emotion "inbetween" life, stories, discussion, "shadowing" one's emotions and thoughts.

We have presented an ongoing research and discussed our theoretical and methodological frame: Why so early? How lay the foundations for imagining new conceptual framework? How experience first hand the ethics of respect and of caring? When the education become "to know to and how" rather than " to know that", it shifts the focus of the speech and research and allows one to experience a culture of exchange and dialogue. It conceives and organises sustainable contexts for learning and learning to live in a collaborative dimension. Mental attitudes, postures, skills and behaviours are passed down from the adult (and the educational settings' coherence) to the children (L. S. Vygotskij, 1992, original ed. 1930; Robtzov, 2005). We need adults who play a *tutoring* and *mentoring* role that can transpose command of matter and *expertise* and allows to experience in situation *humanitas, emphaty*, respect for diversity and differences, with the intent of educating not just the producer/consumer but primarily the citizen (Baldacci, 2016).

Building an ecological mind-set is a *Utopia*, a Big Project for Little Learners, that we want to believe will be realized for all children, men and women of the Planet.

#### References

Banks, J. A. (2007<sup>2</sup>). *Educating citizens in a multicultural society*. New York: Teacher College press.

Banks, J. *et alii* (2007). *Learning in and out of school in diverse environments. Lifelong, life-wide, life-deep.* Washington: The LIFE Center, University of Washington, Standford University and SRI International.

Bauman, Z. (2004). *Wasted Lives: Modernity and Its Outcasts*. Cambridge: Polity Press.

Bauman, Z. (2009). *Vite di corsa. Come salvarsi dalla tirannia dell'effimero.* Bologna: Il Mulino.

Berg *et alii*. (2008). Evidence-based Care and Child-bearing. A Critical Approach. *International Journal of Qualitative Studies on Health and Well-being*, 3 (4): 239-247.

Bertman, S. (1998). *Hyperculture. The Human Cost of Speed*. Westport, Conn.: Praeger Publishers.

Bruner, J. (1996). *The culture of education*. Cambridge Mass.: Harvard University Press.

Birbes, C. (2016). *Custodire lo sviluppo, coltivare l'educazione*. Lecce-Brescia: Pensa MultiMedia.

Calvano, G. (2017). Educare per lo sviluppo sostenibile. L'impegno degli Atenei italiani: esperienze in corso e buone pratiche. Canterano (RM): Aracne.

Christensen, P., Allison, J. (Eds.) (2008<sup>2</sup>). *Research with Children. Perspectives and Practices*. Abingdon Oxon: Routledge.

Clark, A. (2005). Listening and Involving Young Children. A Review of Research and Practice. *Early Child development and Care*, 175 (6): 489-505.

CONFINTEA VI, sixth international conference on adult education, final report (2010). *Living and learning for a viable future: the power of adult learning*. Belém do pará, Brazil, 1-4 december 2009: UNESCO Institut for Lifelong Learning.

Consiglio Nazionale Forense presso il Ministero della Giustizia (2017). *Regole dell'acqua. Regole per la vita*. Milano (Italia) sotto gli auspici della Presidenza italiana del G7: Primo Forum Internazionale, 27-28 settembre 2017.

Contini, M. (2009), *Elogio dello SCARTO e della RESISTENZA: pensieri ed emozioni di filosofia dell'educazione*. Bologna: Clueb. Cullinan, C. (2012). *I diritti della natura*. Prato: StreetLib SRL (Piano B) (ed.or. 2011). Darbyshire, P., Macdougall, C., Schiller, W. (2005). Extending New Paradigm Childhood Research. Meeting the Challenges of Including Younger Children. *Early Child development and Care*, 175 (6): 507-521.

Demetrio, D. (2009). *L'educazione non è finita. Idee per difenderla*. Milano: Raffaello Cortina.

Derrick, J., Howard, U., Field, J., Lavender, P. (2010). *Remaking Adult Learning*. United Kindom: Institute of Education Publications.

Dewey, J. (1916). *Democracy and Education: An Introduction to the Philosophy of Education*. New York: Macmillan.

Dewey, J. (1933). How We Think. Boston MA: Heath.

Dewey, J. (1938). *Experience and Education*. Indianapolis: Kappa Delta Pi, International Honor Society in Education.

*Diamond, J. (2005)* Collapse. How Societies Choose to Fail or Succeed. New York: Penguin Books.

Dockett, S., Perry, B. (2005). Researching with Children: Insights from the Starting School Research Project. *Early Child development and Care*, 175 (6): 467-472.

Dozza, L. (2012). Apprendimento permanente: una promessa di futuro. In ID. (Ed.). Vivere e crescere nella comunicazione. (pp. 15-36). Milano: FrancoAngeli.

Dozza, L. (2017). Lifelong Learning from The Earliest Stages of Life. In IAFOR DUBAI. *Education for Change. East meets West: innovation and discovery. The International Academic Forum* (pp. 1-12). Dubai UAE Sakae 1-16-26-201 Naka Ward, Nagoya, Aichi Japan 460-0008 www.iafor.org.

Erlandson, D.A. et alii. (1993). Doing Naturalistic Enquiry. Newbury Park: Sage.

Fabbri, M. (2016). L'educazione permanente e lo sguardo neuroscientifico. Terza età e questione giovanile. In L. Dozza, S. Ulivieri (Eds.), *L'educazione permanente a partire dalle prime età della vita* (pp. 260-268). Milano: FrancoAngeli.

Farnè, R. (2017). Editoriale. Encyclopaideia, 21(47).

Foulkes S.H., Anthony E.J. (1957). *Group psychotherapy, the psychoanalytical approach*, London: Karnack Books.

Frabboni, F., Gavioli, G., Vianello, G. (1998). *Ambiente s'impara*. Milano: FrancoAngeli.

Frabboni, F., Guerra, L. (Eds.) (1991). La città educativa. Bologna: Cappelli.

Frabboni, F., Pinto Minerva, F. (2014). Una scuola per il Duemila. Palermo: Sellerio.

Frabboni, F., Pinto Minerva, F. (2018<sup>4</sup>). *Manule di Pedagogia e Didattica*. Roma-Bari: Laterza.

Galeri, P. (2003). Uomo-ambiente per un'antropologia dell'educazione sostenibile. In P. Malavasi (Ed.). *Per abitare la Terra, un'educazione sostenibile* (pp. 153-167). Milano: I.S.U. Università Cattolica.

Gennari, M. (2017). *Herrad von Landsberg e l'Hortus deliciarum*. Genova: Il Melangolo.

Grange, T. (2016). Nidi e infanzia: ricerca pedagogica, educabilità e qualità. In L. Dozza, S. Ulivieri (Eds.). *L'educazione permanente a partire dalle prime età della vita* (pp. 88-100). Milano: FrancoAngeli.

Grange Sergi, T. (2005). Nascere a inizio millennio. Lecce: Pensa MultiMedia.

Hatch, J.A. (Eds.) (2007). *Early Childhood Qualitative Research*. New York: Routledge.

Hillman, J.(1999). *The Force of Character and the lasting life*. Toronto: Random House of Canada Publishing Group.

Iavarone, M.L., Malavasi, P., Orefice, P., Pinto Minerva, F. (2017). *Pedagogia dell'ambietne 2017. Tra sviluppo umano e responsabilità sociale*. Lecce: Pensa MultiMedia.

Iovino, S. (2003). Filosofie dell'ambiente. Roma: Carocci.

Karlsson, L., Kjisik, F. (2011). Lifewide and lifedeep learning and the autonomous learner. In Pitkänen, K. *et alii. Out of Classroom Language Learning*. Helsinki: Helsingin yliopiston kielikeskus.

Kundera, M. (1995). La lentezza. Milano: Adelphi (ed.or. 1995).

Limone, P. (2007). L'accoglienza del bambino nella città globale. Roma: Armando.

Lovelock, James (1979). *Gaia: A New Look at Life on Earth*. Oxford: Oxford University Press.

MacNaughton, G., Smith, K., Davis, K. (2007). Researching with Children. In J.A. Hatch (Eds.). *Early Childhood Qualitative Research*. New York: Routledge.

Malavasi, P. (2008). *Pedagogia verde. Educare tra ecologia dell'ambiente ed ecologia umana*. Brescia: La Scuola.

Malavasi, P. (2015). Quello che sta accadendo alla nostra casa. In W. Magnoni, P. Malavasi (Eds.) *Laudato si'. Niente di questo mondo ci è indifferente. Le sfide dell'enciclica*. Milano: Centro Ambrosiano.

Malavasi, P. (Ed.) (2003). *Per abitare la Terra, un'educazione sostenibile*. Milano: I.S.U. Università Cattolica.

Malavasi, P. (Ed.) (2010). Progettazione educativa sostenibile. Milano: EDUCatt.

Marchetti, L. (2012). Alfabeti ecologici. Bari: Progedit.

Margiotta, U. (2011). *The changing mind from neural plasticity to cognitive modificability*. Lecce: Pensa MultiMedia.

Mauthner, M. (1997). Methodological Aspects of Collecting Data from Children: Lessons from Three Research Projects. *Children and Society*, 11 (1): 16-28.

Moore, T., McArthur, M., Noble-Carr, D. (2008). Little Voices and Big Ideas: Lessons Learned from Children about Research. *International Journal of Qualitative Methods*, 7 (2): 77-91.

Mortari, L. (2003a). La ricerca educativa nel campo dell'educazione ambientale. In P. Malavasi (Ed.), *Per abitare la Terra, un'educazione sostenibile* (pp. 77-99). Milano: I.S.U. Università Cattolica.

Mortari, L. (2003b). Apprendere dall'esperienza. Roma: Carocci.

Mortari, L. (2009b). Aver cura di sé. Milano: Bruno Mondadori.

Mortari, L. (2013). Aver cura della vita della mente. Roma: Carocci.

Mortari, L. (ed.) (2009a). La ricerca per i bambini. Milano: Mondadori.

Mortari, L. (ed.) (2010). Dire la pratica. Milano-Torino: Pearson Italia.

Mortari, L., Camerella, A. (eds.) (2014). Fenomenologia della cura. Napoli: Liguori.

Oliverio, A. (2015). Neuropedagogia. Giuanti: Firenze.

Paparella, N. (2005). *Pedagogia dell'infanzia*. Roma: Armando. Pinto Minerva, F. (2017), *Prospettive di ecopedagogia*. *A scuola dalla natura*. In Iavarone M.L., Malavasi, P., Orefice, P., Pinto Minerva, F. (eds). *Pedagogia dell'ambiente 20017*. *Tra sviluppo umano e responsabilità sociale*. Lecce: Pensa MultiMedia.

Pontecorvo, C., Ajello, A.M., Zucchermaglio, C. (1991<sup>1</sup>). *Discutendo s'impara*. Roma: La Nuova Italia Scientifica.

Punch, S. (2002). Research with Children: the Same or Different from Research with Adults?. Childhood, 9 (3): 321-341.

Risoluzione Nazioni Unite (2015). *Trasformare il nostro mondo: l'Agenda 2030 per lo Sviluppo Sostenibile* 

http://www.lavorochecambia.lavoro.gov.it/documenti/Documents/Agenda-2030-per-lo-Sviluppo-Sostenibile-ONU.PDF.

Rychen, D. S. (2004). Lifelong Learning. But Learning for What? LLinE, 1.

Semeraro, A. (2006). Del sensibile e dell'immaginale. Lecce: Icaro.

Sharp, L. (2002). Green Campuses: the road from little victories to systematic transformation. *International Journal of Sustainability in Higher Education*, 2: 128-145.

Smith, A., Duncan, J., Marshall, K. (2005). Children's Perspectives on their Learning: Exploring Methods. *Early Child Development and Care*, *175* (6): 473-487.

Sterling, S. (2001). Sustainable Education. UIT Cambridge Ltd, England: Green Books.

Stevenson, R.B. (2007). Schooling and environmental education: Contradictions in purpose and practice. *Environmental Education Research*, *13* (2): 139-153.

Tainer, J. (1988). *The collaps of complex societies*. Cambridge: Cambridge University Press.

Tischner, J. (1981). Etica della solidarietà. Bologna, CSEO (ed.or. 1981).

Vygotskij, L. S. (1990<sup>1</sup>), *Immaginazione e creatività nell'età infantile*, Roma-Bari: Collana Paideia, Editori Riuniti (ed.or. 1930).

Vygotskij, L. S. (1992), Pensiero e linguaggio, Laterza, Roma-Bari (ed.or. 1934).

Wals, A.E.J., Corconan, P.B. (2012). Re-orienting, re-connecting and re-imagining: learning-based responses to challenge of (un) sustainability. In ID., *Learning for sustainability in times of accelerating change*. Waneningen: Waneningen Academic Publishers.

West-Burnham, J., Coates, M. (2005). *Personalizing* Learning: transforming education for every child. London: Network Educational Press, Stafford.

Winnicott, D. (1975<sup>1</sup>). *Dalla pediatria alla psicoanalisi: scritti scelti*. Firenze: Martinelli Editore (ed.or. 1944).

WCED, World Commission on Environment and Development, (1987). *Our Common Future*. In www.un-documents.net/our-common-future.pdf.

Yin, R. K. (2003<sup>3</sup>), *Case Study Research. Design and Methods*. Tousand Oaks (California), London (United Kindom), New Delhi (India): SAGE Publication Inc.

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