# Lifelong Learning from The Earliest Stages of Life

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#### Abstract

The concept of Lifelong Learning, generally assumes that lifelong learning starts only when school finishes, thus overlooking the great importance that educability and education in the first stages of life have for one's whole life.

We define Lifelong Learning in broader terms as a process that builds from the first days of life and extends across one's whole lifetime to old age (*lifelong learning*). In addition, it develops in different environments related to training and experience (*lifewide learning*); furthermore it requires a secure basis and a deep form of learning (*lifedeep learning*) from which one can continue building over the course of life. Lifelong Learning is it a process located in historical-cultural and socio-economic contexts and mediated through the practices and perspectives of local culture (Engeström, 1987; Banks, Ball et al, 2007).

Today, three challenge remain unsolved in Europe (Field, 2010): the quality of education in formal contexts, starting from early education; the quality and enhancement of experiences in informal and no-formal educational contexts; the development of intentionally-designed educational settings, places of action, and significant experiences for the individual and for the group (Lindeman, 1926; Yeaxlee, 1929; Vygotsky, 1934; Dewey, 1938; Bruner, 1997; Cotè, 2004; Banks, Ball et al., 2007).

The basic idea is that 'educability' is a precondition for education and that 'education' is a factor of educability: in childhood and adolescence, there is a need to ensure those conditions for maturing and developing that are necessary in order to facilitate and not to compromise the mind's ability to learn throughout life.

Keywords: Lefelong, Lifewide, Lifedeep Learning; Little Learners; Formal & noformal Education, Intergenerational relationships

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#### Introduction

It is widely recognised that lifelong learning is a natural and social process that is built from the early days and weeks of life and even before, and that spans the entire course of life, until old age (*lifelong learning*). It is built *in different areas* of education and experience (*lifewide learning*) and, above all, should be a process capable of providing cognitive and emotional anchors that trigger narrative paths, reflection, the enhancement of stories and identities that acquire the value of a *life-deep learning* (*life-deep learning*) and are a solid foundation on which to build during one's lifetime (West-Burnham & Coates, 2005; West-Burnham & Huss Jones, 2008; CONFINTEA VI, 2010; Derrick, Howard, Field & Lavender, 2010 Karlsson & Kjisik, 2011). It is also recognised, in line with the theoretical-methodological and interactive-constructivist and contextualist approach, that learning (and the perception of the usefulness of learning experiences) is a culturally-imbued process that fits into the historical-cultural and socioeconomic context and that is mediated by the practices and perspectives of local culture (Engeström, 1987; Banks, Ball et al., 2007).

Furthermore, when addressing the topic of Lifelong Learning, we generally refer to adulthood and old age, to training in service, to professional retraining in the labour market, to high postgraduate education and cultural and spiritual enrichment, as though lifelong learning began *when we finish school*, and in any case downplaying the huge importance that educability and education in the first stages of life have for a lifetime.

### **Three Challenges**

In some strands of the literature available on Lifelong Learning in the 20<sup>th</sup> century we are faced again and again with three main challenges that, after about 100 years (and apart from the various statements and communications to the European Parliament), are still not fully realised, for all ages and especially for the first stages of life, in most European countries (Field, 2010). These are:

- the better the quality of education in formal contexts, characterised by a formalised curriculum, starting with the first schools to University, the greater the potential for education and development in a lifetime (Yeaxlee, 1929);
- the better the quality of education and the quality <sup>1</sup> and enhancement of experiences acquired in non-formal educational contexts, but intentionally formative, such as families, churches, social-educational and training services

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According to Dewey (1938, Italian transl. 2014), 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 on the basis of three principles: (a) and (b) the principle of continuity and the principle of growth. In other words, each experience receives something from those that came before it and changes the quality of those that follow; and (c) principle of interaction. That is, the conditions of the experience are always two: the condition of the external environment and the condition of the subject that the educator must consider when developing the learning "situations". In this sense, learning situations must comply with the principles of continuity and development by connecting the past, present and future, and must combine the subject with the context within the experience, so that school work be the result of a collective endeavour. The experience in the "situation" thus becomes the means and end of education.

- of local educational institutions (libraries, museums, art galleries, game centres, etc.), associations and working environments, *the greater and more open will be the "room for free personal movement,"* and therefore the possibility/self-awareness of cognitive-emotional enrichment and autonomy (Yeaxlee, 1929; Dewey, 1938, Italian transl. 2014; Lewin, 1935, 1997; Bruner, 1997; Cotè, 2004, Banks, Ball et al., 2007);
- the better the development of educational contexts so that "something experientially meaningful" (Riva, 2016, p. 214) for the individual and for the group can occur (e.g. recognising and attributing value to the action and to previous experiences, building upon them but pointing beyond, respecting the timing, pace and styles of learners), the greater the chance of learning, namely of becoming an energy transformer and carrier in the form of play and work, of imagination in thought and in action, of reflection and dialogue (Lindeman, 1926; Yeaxlee, 1929, Vygotsky, 1934, Italian transl. 1992).

# Big Plans for Little Learners: Why? What? How? Where? With Whom?

Research on the educability of the child has revealed a large amount of empirical evidence and theoretical elaborations about rights, personal traits and expressions of relative maturity, quality of the contexts of education and care, as well as of the meso-and micro-contexts (Bronfenbrenner, 1979; Paparella, 2005; Grange Sorgi, 2005, 2011; Limone, 2007). The basic idea is that *education is a factor of educability and educability is a requisite for education*. Therefore, the purpose of this research is to be able to identify for each and every one the most favourable conditions for learning and an effective avenue for educational success (Grange, 2016, p. 88-100).

The reasons for believing that the potential of lifelong learning is to be cultivated from the earliest stages of life (as it is precisely the first stages of life that are a "work in progress", a "proximal development area" for future life) are manifold.

# Why? Needs of relational contexts with a good cognitive and emotive bond value

For humans, it is vital to be part of a relational system with bonding value: a transpersonal network with emotional-cognitive value that can be likened to a magnetic field (Foulkes and Anthony, 1957). On the subject, Foulkes writes:

"Every individual is part of a social network, a small nodal point, so to say, in this network, and can only artificially be considered as an entity on its own, as a fish out of water. In addition to these horizontal ramifications with other people and the community, the individual has a vertical connection that represents his biological inheritance, which he develops throughout life" (1957, p. 42).

According to the group-analytical conception, of which Foulkes is the founder, personal identity is structured through relationships that are potentially open to endless connections with different subjects, groups and contexts: the vertical ones, which hand down and transform our biological inheritance, personal history, events and culture of the groups we belong to, and the horizontal ones, that are built in educational contexts and through the many stimuli of everyday life. The educational

quality of the contexts (space, time, relationships-rules) in which the young boy and girl grow and, more specifically, of the dynamics that are at play within them (which are potentially constructive and creative and/or destructive and regressive) is a goal to which we need to reserve great care and which is never permanently achieved (Nitsun, 1991).

Consistently, other studies show that in order to survive, humans must be part of open systems that are functionally linked to other systems (especially to other brains) related to a broader context and that, as such, are prone to change when the environmental conditions and their own activities change (Contini, Fabbri, Manuzzi, 2006; Cozolino, 2008; Fiz Perez, Caserta, 2010). Research 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, because there is a significant relationship between early experience and brain function. Cognitive development and the fluidity of intelligence are based on the formation of new synapses, the "pruning" of other ones and the structural and functional restructuring of nerve networks through the mediation of experience (Margiotta, 2011). According to educational neuroscience:

[...] 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. Conversely, the lack of experience or lack of educational care can have adverse effects on contacts between nerve cells (synapses) and on neural circuits, reducing their complexity. Brain development is largely a process that depends not only on a genetic programme, but also on both positive and negative experience. [...] The physical structure of the brain, therefore, does not depend solely on a genetic programme, but also on the fact that experience fosters the establishment of new neural connections, the production of neural mediators and "trophic" principles, such as the well-known "Nerve Growth Factor" (NGF) discovered by Rita Levi Montalcini, which facilitate the transmission of information and the efficiency of neural circuits and thus, the activation of cognitive functions (Oliverio, 2015, pp. 10-11).

## What? The Self as a body and as a narrative

The construction of identity starts very early in the environment where the young boy and girl move and act, and where they form and recognise their linguistic, religious and moral sense of belonging.

In the construction of identity, the motor dimension (the oldest from the evolutionary point of view) has been thus far neglected at the expense of a "disembodied" cognitive dimension. However, this dimension can shape not only motor skills, but also motivational and cognitive ones.

As it evolves, in fact, the brain needs to have tactile and motor experiences for it to develop those sensorimotor areas that represent the starting point for the development of the higher areas, those of language and complex thought. [...]

Our brain is a huge archive of motor repertoires [...] that the Russian psychologist Alexander Lurija has called "kinetic melodies" to indicate the complex fluidity that all of us apply to the individual acts of everyday life (Oliverio, 2015, p. 32).

Even before the birth of neuroscience and cognitive psychology, Maria Montessori described these traits of the infantile mind in her book *The discovery of the Child*, where she points out that children create their 'mental flesh' through experience in their environment. Therefore, we can say that the self and self-awareness are a product of the *Self as a body* in action in the concrete context to which the child belongs.

The self and self-awareness are also a Self as a narrative or, in other words, the product of a story we tell ourselves to "put things in order" and give meaning and coherence to the succession of facts in our life. Image and self-awareness are co-built, story after story, through the progressive "layering" of representations and narratives: narratives of others, especially of significant others, and narratives made for ourselves and others, and about ourselves and others. This is a process that develops in a surprisingly systematic way that is also "deeply intertwined with how we master language itself, not only with syntax and lexicon, but also with its rhetoric and with the rules applied in forming the narrative. Like all other aspects involved in the shaping of the world, the construction of the self (or "construction of life") depends on the symbolic system in which it is conducted, its opportunities and constraints" (Bruner, in Sempio, Marchetti, 1995, p. 136). The cognitive-emotional "roots", to which experiences and stories are anchored, develop curiosity, mental outfits, aptitude frames and valuable implicit knowledge. They allow us to discover/recognise similarities and experience cohesion, in order to progressively acquire an awareness of otherness. And this "matrix" that is built day after day tends to be transmitted from generation to generation.

## What? Emotional and cognitive Self-awareness

Emotions and Self-awareness are "in-between", "inside" the "I" as a body and the "I" as a narrative.

If you have a body you have emotions. If you have cognitive tools (language and literacy) you can use them to express perceptions, emotions, concepts. We are emotional animals, we are musical animals, we leave the metaphor we create (Lakoff and Johnson, 1980).

The plasticity and cognitive modifiability of the brain and the obvious importance of early experiences calls us to cultivate, from the earliest stages of life, evolved human qualities such as pro-sociality, comprehension, listening and intentional communication, cooperation, emotional self-awareness and reflection. Identity and cognitive-emotional self-awareness can be severely compromised in the absence of these qualities, which should be experienced, exercised and mastered in formal and non-formal contexts, above all in families and in early schooling, particularly in childhood and pre-adolescence. Emotional self-awareness requires developing the

capacity to recognise the sensations felt in relation to a particular emotion, to know how to explain what we experienced verbally and to describe the event that triggered the emotion, to know how to recognise and process thoughts, emotions and feelings, learning to monitor and handle our emotions. At school, we can point to an expansion of the children's linguistic repertoire and ability to speak of themselves, with oneself and with others, to recognise how they feel and communicate it, to understand how their friends, parents or other people feel, to learn to communicate (*Self message*) the sensations, emotions, feelings and thoughts they experience and have. It is clear that emotional literacy is only a first step, but we believe that it can help lay the groundwork for developing advanced skills at an age (such as early childhood in kindergarten and elementary school) when the young boy and girl (and also the preadolescent) are not yet fully committed to coping with the pressure of other developmental dimensions.

As Fabbri (2016, p. 265) writes: "We thus return to the key role of infancy and puberty in formative experience, not because all the knowledge we need to survive has to be imparted at these stages of our lives, but because during them there is a need to ensure those conditions for maturing and developing that are necessary in order not to compromise the mind's ability to continue to learn throughout life".

# Haw? Contexts such as magnetic fields and constructive dynamics

As we have mentioned: (a) in order to survive humans must be linked with different subjects, groups, contexts (expecially with other brains); (b) all ages of life are important for the development of the dimensions of existence and for people to feel fulfilled in their humanity and cultural and spiritual wealth, both as producers and as citizens. But there are particular ages where, by virtue of mankind's educability and of the fact that education is the key factor of educability, "matrices" are developed on which real scripts will be "engraved" that will guide and affect action and learning. We therefore may have reason to ask ourselves: what form of education can have deep roots and value for the development of the individual and the community? What form of education is able to keep up with the "transformation-proneness" of local and global contexts and with a society prone to multiple and persistent transformations?

We have to take care of the educational quality of the experiences and settings (space, time, relationships-rules for educational Projects): the environment-mother and the environment family (Winnicott, 2005), the environment-community, the environment-Planet (earth, nature, urban areas). In these fields of action we weave relationships that are potentially constructive and creative and/or destructive and regressive (Nitsun, 1991).

The first schools represent a great experience of continuity in discontinuity. Educational responsibility involves the commitment to accompany and support the development of identity through a relentless succession of differentiations and integrations, and consists in identifying individual children, their subgroups and the class as the measure of the educational choices and action. How can this be done?

# How? The essential components of learning

We agree with Dewey (1938) and with the lines of research on *experiential learning* (Mortari, 2016) and *cooperative learning* (Comoglio 1996, 1998, 1999; Dozza, 2006; Ellerani, 2013) in suggesting that an experience has educational value if it knows how to devise contexts and create inter-subjective relationships that act as "carriers" of energy or, in other words, that allow/indicate to the subject to look and go beyond, in the direction of independence. This is to say that:

- it knows how to take advantage of the experience acquired and of the "little stories" to expand the possibility of future experiences, and how to recognise/respect relative maturities, linguistic and cultural affinities, the timing, pace and personal cognitive styles, because every age has particular biological traits and each child has his/her own individuality;
- it knows how to form significant new experiences and projects in which the individual (and the group) can act as a body and as a thinking machine, and feel "a head taller than themselves" (Vygotskij, 1930). In other words, it knows how to ensure that the learner can feel as a creator of action and part of group-game and/or learning projects.

In a school that still frequently favours the information sphere to the detriment of one that focuses on the needs of the individual child/student (including emotional needs), there is a need to create the conditions for a *life-deep learning* at an early age. It is again Dewey who provides the most complete and concise definition of *life-deep learning*<sup>2</sup>. In discussing the subject, Dewey emphasises the essential components of learning in a profound sense: he distinguishes between information and knowledge; he focuses the attention on understanding; he considers reflection as the key learning process.

West-Burnham (2010), drawing inspiration from Dewey, lists five different forms of learning: 1) an increase in the amount of information; 2) memorisation; 3) the development of skills and techniques; 4) understanding, in the sense of the ability to grasp relationships and to be aware of the processes involved; 5) the ability to create new realities and to engage in the critical assessment and renewal of knowledge. The categories described in points 1), 2) and 3) can be considered forms of *shallow learning* that concern the management and memorising of information provided by the teacher; the fourth and fifth category are linked to *deep* and *profound learning*. In *deep learning*, the teacher is a facilitator, mentor and co-builder of the learner's knowledge and brings into play a higher order of cognitive skills (analysis, synthesis, integration of the lessons learned with other themes and topics, formative and negotiated assessment, understanding of one's learning process). In *profound* 

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<sup>&</sup>lt;sup>2</sup> We state emphatically that, in terms of its intellectual side, education consists in the formation of wide-awake, careful, thorough habits of thinking. 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).

learning, in which the teacher is a guide and coach, the learner is capable of transferring skills on to new situations and, in the personal reinterpretation of knowledge and problems, relies on the understanding of the whole and of the relationships between the different parts. In summary, in shallow learning I rely on my usual tactics (single-loop learning). If I fail to achieve the aim by adopting the usual tactics (and I am able to), I reflect and I try to understand (deep learning), in order to change my goals and strategies (double-loop learning). But if the situation again challenges me (and I am able to), I try to acquire an even deeper understanding (profound learning) of the situation/problem and to change my very own way of seeing and dealing with them (triple-loop learning). West-Burnham uses a metaphor to describe these different learning levels. If shallow learning is like playing the notes, deep learning creates the melody and profound learning echoes that melody within ourselves and in relation to others to transform it in a creative way.

The main indicators of the *deep* and of the *profound learning* are: the ability to create and exchange meanings; to analyse and codify; to describe, model and illustrate; to recognise and create connections; to problematize (Why? How? What if?); to compare; to contextualise, i.e. to recognise relationships and differences; to formulate assumptions and generalise; to transpose theory into practice; to have self-awareness and orientation.

There are some strategies that can support the development of deep and profound learning: understanding one's learning styles, aptitudes, dispositions and motivations; using a portfolio of cognitive strategies (analysis, synthesis, method); problem solving; a constructivist approach and extensive use of small-group coaching insofar as concerns the use of strategies and mentoring; emotional self-awareness (emotional literacy); personalised educational paths; consideration of the student as a whole by recognising the role of the family and community; systematic review and reflection. These are strategies that belong to approaches such as experiential learning and cooperative learning, which unfortunately are all too often considered as a set of techniques rather than as methodologies supported by clear theoretical constructivist and contextualist references oriented to developing meaningful learning and deep learning.

The development of active and collaborative learning environments interested in deep and profound learning allows us to build a culture of learning even among students (Ellerani, 2012). We know that when students do not feel aware of their pre-knowledge and personal learning strategies, they may experience greater difficulty in organising learning and in tackling new concepts. Most importantly, to keep themselves actively learning throughout life, students need to discover that they know how to use personal methods to control their study actions and the way they develop and produce knowledge by creating/discovering connections with their own experiences (Schneider, Stern, 2010) and with conceptions of others (De Corte, 2010).

Intergenerational relationships to create deep learning, soul and force of character

The different generations need to be part of a vital netowork where they meet and clash, where they rely to each other and differ.

Grandmother and Grandfathers have the huge duty to "do spiritual work", by talking about the things that really are important. They can accompany the gradual re-writing of the personal and family narratives, and can help others to understand the carious seasons of life. Grandmothers and Grandfathers have the important task to fulfil the generational pact between human beings and the being of the Planet (Hillman, 1999).

#### Conclusion

When the education become "to know to and how" rather than " to know that", it opens minds and builds the foundation of deep learning. It shifts the focus of the speech and research and allows one to experience a culture of exchange and dialogue. It conceives and organises contexts for learning and learning to live in a collaborative dimension. Mental attitudes, postures, skills and behaviours are passed down from the adult to the children and little learners (L. S. Vygotskij, 1992, original ed. 1930; Robtzov<sup>3</sup>, 2005), from the context's and settings' coherence to the children and little learners. We need adults who play a scaffolding function.

To make Big Plans for Little Learners 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 and respect for diversity and differences, with the intent of educating not only the producer/consumer but primarily the citizen (Baldacci, 2016).

We know that Lifelong, Lifewide, Lifedeep Learning is a Utopia, a Big Plan for Little Learners, but we have to work in order to try to realize this Big Project for all children, men and women of the Planet.

with headquarters in Moscow.

<sup>&</sup>lt;sup>3</sup> Vladimirovich Rubtzov, Director of the Psychological Institute of the Russian Education Academy (R.A.O.),

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