The "Labyrinth" Archetype as Educational Scenario in Pre-School Age

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Abstract—The labyrinth is a very ancient archetype, widely spread all over the world which has always signified an initiatory journey, a sort of trial. In particular, for preschoolers (5 years old), the labyrinth represents getting in touch with the dark and instinctive part of oneself while at the same time gaining a sense of trust which, thanks to the teacher’s collaboration, serves to be aware and in control of one's instinct. It represents a first experience of oneself in terms of recognition and regulation of emotions, self-efficacy and managing empowerment. During the play-motor activities carried out in this project, with the participation of 72 children attending the last year of nursery school in Florence, the Jungian archetype of the labyrinth was used as a "symbolic container" to bring out emotional experiences beginning with the use of the 5 senses, to encourage the exploration, discovery, identification and personalization of a space where it is possible to "feel good". As a symbolic path, the labyrinth views the child an active subject that explores his or her own limits and strengths through his or her own personal baggage before the transition to primary school.

Index Terms—Pre-school age, labyrinth as a symbolic path, emotions, self-efficacy, management of empowerment

I. INTRODUCTION

So why from India to ancient Egypt, from northern Europe to southern Africa, for instance, has man represented the same two human footprints thousands of times? How do you explain that in Israel or Tibet and Yemen the ritual hunting scenes are so similar that they look like the work of the same hand, centuries later? For what mysterious reason have the peoples who have never met each other repeated the same figures and myths? To these questions, different disciplines (archaeology, biology, studies on religions, anthropology, linguistics, paleontology, medicine and philosophy) are in agreement that human beings belong to a single species. Beyond the external differences, we all have a substantially identical genetic heritage, a single physical and psychic structure, which sooner or later gives rise to the same thoughts and visions in the most distant corners of the planet (Sansoni & Maillard, 2018) [1]. This term derives from the ancient Greek άρχετος meaning image: arché ("original"), tipos ("model", "brand", "sample"). From an educational point of view, it can be considered as a symbolic tool for self-perception, meditative thinking exercises able to reflect a greater self-awareness related to one's "path" as a human being and represents a complex reality that today's and tomorrow's adults are faced with every day of their lives. Every day there are new things to do, discoveries to make, conquests to try. The theory of archetypes was developed at the beginning of the 20th century by Carl Gustav Jung, stating that the collective unconscious carries within itself primordial images of behaviour from a matrix common to all peoples, without distinction of time or place. According to Jung, archetypes are present in the collective unconscious which is the heritage of all humanity and are a priori forms of imagination, dispositions to experiment in one way rather than another. Formulated as repositories of the experiences made by the human species, archetypes re-emerge as symbolic elements in dreams, myths, legends of peoples and also serve as shapes or models that organize the individual experience. They may also be considered as thematic nuclei, the human needs that represent the basic fundamental structures, unchangeable with respect to the transformations and changes that occur over time (Truppi, 2011) [2]. In each individual, the archetype is covered by personal experience and imagination that takes a unique form, for instance, anything negative and dark or positive or luminous; we know archetypes through their manifestation, personal or historical. It is precisely through these experiences that Jung begins the process of identification for which each man, differentiating himself, forms his specific personality and gives meaning to his existence. In 2020 modern Sapiens still have in their baggage a heritage ready to manifest and the concept of archetype, in this sense, can also be compared to embryonic stem cells, those not yet programmed, but carrying the innate possibility of developing into multiple forms (Sansoni, 1998) [3]. According to Jung, archetypes are "innate functional patterns that constitute human nature as a whole", they are symbols of concepts, primordial instincts, patterns rooted in the human body and psyche and manifest themselves in our lives by helping us to build our individual consciousness (Jung, 1959) [4]. So, archetypes are as the innate personal unconscious, a part of the "universal" psyche in contrast to the personal psyche because they support specific contents and modes of behavior that are somehow the same for all individuals (Yalom and Fardipour, 2019) [5]. Specifically, the
labyrinth has a complex history that reflects the variety of meanings linked to its symbolic dimension and it is considered the metaphor of the human condition; its primordial attributes have inspired approaches within different categories of knowledge such as philosophy, literature, mathematics, physics or the arts, influencing the evolution of thought itself (Andreica, 2015) [6]. Labyrinths are historical and cultural symbols that have existed for about 4,000 years (Hanson, 2015) [7]. Preschoolers living playful-motor-sensory experiences immersed in a symbolic context can release emotions that significantly reveal the evocative and generative nature of archetypes. Preschoolers are able to flexibly adapt their explorative actions to the characteristics of the current task to maximize their active learning effectiveness and adaptability. The use of tasks that promote an ecological learning, such as the path of a labyrinth, are effective to understand more deeply what factors determine an improve active learning and adaptation skills and are necessary to increase our understanding of learning strategies in preschoolers (Ruggeri, Swaboda, Sim & Gopnik, 2019) [8].

A. Teaching Procedures and Methods

Over the past couple of decades until the most recent scientific literature, it is known that emotions play a very important role in the educational system and contribute to the success of learning skills ranging from the internalisation of knowledge and meaning to the enhancement of the personal experience of students (LeDoux, 1996) [9]. In the educational field, therefore, many of the educational activities proposed to achieve adequate motivational involvement with the ultimate goal of generating effective learning must take into account that human beings are a combination of rationality and emotionality. In this light the student must be educated and must learn to learn (Trisciuzzi, 1999) [10]. Emotions serve as a guide in the decision-making process and in the formulation of ideas that are decisive for the learning process. Methodology that supports the growth of children attending kindergarten (3-5 years) in the years preceding reading, calculating and writing learning - especially in the school environment - cannot fail to consider the need to recognize and regulate their emotional states from the perspective of the most complex demands that later on will begin during the next primary school cycle (Blair, 2002) [11]. As Vygotsky states, a thought is not born from another thought, but from the sphere of motivations of our consciousness, which contains our passions and needs, our interests and impulses, our actions and our emotions. The thinking closes the sphere of active and volitional tendencies which only the thought analysis can provide an answer (Vygotsky, 1987) [12]. Therefore, learning is not just a passive preconditioning and assimilation of pre-packaged contents, but a process which can be facilitated through the targeted activation of the emotional-cognitive component. Beginning from kindergarten, therefore, bringing up the knowledge about our own emotions is a challenge and adventure implying an act of trust and the courage to plunge into the unknown and uncertainty (Vygotsky, 1980) [13]. Many other evidences so far have underlined the crucial importance of emotions in learning, especially the connection between emotions and memory. Emotions play an important role in cognitive processes related to memory since the power of memories depends on the degree of emotional activation induced by learning, so experiences with medium-high emotional participation determine the involvement of brain structures in the limbic system, such as the amygdala and orbital-frontal cortex and have good chances of being remembered later (Palombar & Stegagno, 2007) [14]. My project therefore started from the conviction that emotions serve as an inner child's resource in order for individual learning potential to emerge. The project idea was accepted and developed in three class groups, so two other teachers joined my project proposal and implemented it in their class groups. In order to identify the context in which to bring out the personal experiences of five years old children attending the last year of kindergarten, a big garden was set up as learning environment, at the school's disposal. A labyrinth with elastic ribbons that intertwined between hedges and trees was then built in one part of the garden to create the effect of a real path, and an unusual and mysterious environment to cross. Various activities were then proposed inside the labyrinth for a couple of weeks (stimulating the use of the five senses to discover the environment and gymkhana organised in a playful-motor form with the aim of stimulating basic psychomotoricity in running, jumping, throwing, climbing, etc.). Walking inside a labyrinth and being able to cross it activates pre-modern models, "whole brain", a consciousness that led to an alternative, authentic, holistic perceptive point of view (Compton, 2001) [15]. After the last activity scheduled and successfully passed all the tests to exit the labyrinth, according to the Jungian archetype meaning, each child was asked to find in a larger space their own "secret garden", a space where they could "feel good" in reference to their imagination.

B. General Learning Objectives

Cross the labyrinth and at the end of the journey discover a "secret garden" through the five senses, educating oneself to listen to and recognize one's own emotions:

- Using sight and reflecting on what has been discovered: colours, shapes, dimensions, lights and shadows;
- Using hearing and reflecting on what has been discovered: sounds and noises (wind, insects, birds, etc.);
- Using touch and reflecting on what has been discovered: the tactile exploration of all objects used to build obstacles along the way (rubber bands, mattresses, skittles) and natural elements (earth, grass, flowers, bark and insects);
- Using the taste during the path in the labyrinth by eating some types of fruit (apple, pear, cherry) that come from the trees of the school garden where the activities and reflections on what was discovered took place;
- Using the sense of smell and reflecting on what has been discovered: searching for the good and bad scents of the garden during the path through the labyrinth. At the end of the path designed ad hoc as a labyrinth and after reflecting on the perceptive experience lived, the children proposed to build their own garden, educating themselves...
to the sensorially of thought through the five senses experienced along the path inside the labyrinth as “five open windows” to know the outside and also their inner functioning:

- Encourage all to face the unknown (overcoming an obstacle represented by climbing on a mattress or passing through a circle, following a zig-zag path as soon as possible, etc.).
- Encourage all participants in this activity to establish a relationship with nature, a search for harmony between their needs and those of the natural environment, and between what the environment offers and what the preschoolers want to achieve;
- Encourage exploration, walking in open spaces, finding a place to “feel good”. After leaving the labyrinth and finding their favorite space, children could think about their inner space, what emotions to bring out or dramatize, who and what to take there or how to build their conquered space, their “secret garden”.

C. Specific Learning Objectives

- Be able to walk through the labyrinth with confidence, challenging the atavistic fear of the unknown and the possibility of getting lost along the way;
- Learn about the space through the five senses in an adaptive way and to recognize their own emotions from the discoveries encountered during the symbolic path of the labyrinth;
- To experience through playful-motor and sensorial experience, motor and perceptive abilities in the space-time dimension;
- Learn to observe and explore with natural materials combining and transforming them, adapting them to a personal idea about a “secret garden” (an inner place where “feel good”);
- Carry out the project of one’s own “secret garden” (looking for objects, materials, language skills to describe the imagined space where one can “feel good”, etc.).
- Recognizing and expressing emotions and feelings;
- Controlling frustration and overcoming difficulties;
- Strengthening autonomy, self-esteem and identity;
- Developing the perception of themselves with personal characteristics and abilities.

II. METHODOLOGY AND GOALS

The approach used was based on discovering, emerging and strengthening the creative attitudes of each of the participants. The journey is a pedagogical metaphor of the educational processes as, for instance, in many fairy tales it represents the transaction to adulthood. It is a journey towards a predefined goal, the path of life. Directly related to this concept is exploration. Exploring is about searching for what is hidden and the word in itself implies a motion of global curiosity that moves the individual towards the unknown. For this journey to take place, it is necessary considering fundamental the notion that the child, having his or her personal baggage, becomes an active subject exploring and reaching a form of self-knowledge, of his or her own limits and strengths with respect to a goal to be reached. In other words, the labyrinth highlights, in its figurative form, this psychological journey accompanying man in history and his tortuous path of knowledge. Each one of us creates its own labyrinth. Facing a number of obstacles in life and trying to overcome them, we simply begin a path of growth by constantly entering and leaving the daily labyrinths. Since the labyrinth can be considered as a genetic heritage that characterizes the human species and that presents dominant models in human life that are found in every culture, has been used as a scenario for proposing play-motor activities. Also because considering the methodological tools of the project, a labyrinth is a symbol that facilitates the expression of inner experiences at pre-school age and in heterogeneous and multicultural class-groups such as those that participated in this project. Every human being, in fact, is a set of emotions, memories, symbols and nothing like the path within a labyrinth can better evoke the path of self-identification (Rosenstiehl, 1979) [16].

A. Project Planning

The project was proposed to three class-groups of 22, 24 and 26 children in heterogeneous and multicultural groups attending the last year of kindergarten and therefore involved a total of 72 preschoolers (38F; 34M).

B. Human Resources and Costs Spent

The human resources employed were three teachers (including myself) for each of the three class-groups heterogeneous and multicultural class-groups involved in the experimentation. Therefore, there were no costs for the realization of this project with the exception of the elastic ribbons and other materials that were used for the construction of the labyrinth, purchased by the three representatives’ parents of the participating class-groups.

C. Evaluation

Jung’s vision of education is that educational processes are archetypes of their own. Interactions between teacher and student involve such profound experiences implying that it is impossible to conceive the education of human beings without using them. We are involved in educational acts all our lives, as teachers, students and often both. There is no human culture that has ever been founded or perpetrated without education regarding everything from how the universe was born to how to prepare a meal. The powerful archetypal significance of education is highlighted by the centrality of the archetypes of the Old Wise Man and the Old Wise Woman, who are at the top of Jung's list of the historically most important archetypes (Jung, 1967) [17]. Old Wise Men appear in many myths of different cultures, often associated with a young hero or a heroine engaged in a dangerous journey to accomplish a great but difficult task. This symbolic journey represents the hero's acceptance of a challenge, leaving a childish nature behind and controlling the difficult bonds which will lead to personal and transpersonal growth (Campbell, 1949) [18]. Shortly after completing the dangerous symbolic journey, the hero meets the Old Wise Man or the Old Wise Woman. Such wise old men have successfully completed their archetypal research many years before, when they were young and now have the task of guiding
young travellers. These wise old, first of all, are educators. Their amulets and potions symbolize the fact that they are able to direct the seeker and often speak in riddles to stimulate younger students to intellectual and moral growth (Mayes, 2005) [19]. The Wise People are so closely linked to teaching, in fact, Jung defined them "the archetype that best personifies meaning" (Jung, 1963) [20]. Considering Jung's point of view on education as an intrinsically archetypal and therefore potentially sacred act, in the perspective of the teaching/learning process, it can therefore be said that the teacher who in everyday school life interprets the student-teacher archetype in contact with the archetypal nature not only of his profession but of his own psyche, is to some extent destined to be an influential teacher. Jung was against any approach to teaching and learning that was essentially technical in terms of methodology, tools or teaching objectives. Jung considered that every educational system has legitimate strategic objectives to educate to the social efficiency required by contemporary complexity - functional to educate to become citizens of a modern society characterized by technology. However, these objectives must always be in line with the primary objective of training students from the psychological and moral point of view considering every child in all its physical, emotional, cultural and ethical complexity from the early years of his school life, to avoid the risk of creating psychic "disorientation and fragmentation". Until a few decades ago - and not only in European countries - both the child who lived in the city and the one who lived in the country could both use the surrounding space as a natural gymnasium. The child who lived in the countryside played with the products of the earth and often had a lawn to roll and run on, a tree to climb and other natural contexts with which he or she could confront themselves. Moreover - even if in smaller spaces - even the motor heritage of city children still had streets and courtyards where they could vent their extroversion to movement. Nowadays it is much rarer to see children playing in the street because of the excessive traffic that prevents the possibility of developing an adequate psycho-motor consciousness. Even city parks often fail to meet this innate need. Today the technological child at every latitude is ready at an intellectual level to manage a computer, attracted by images and accurate in his linguistic productions, but, at the same time, these children are limited in the use of the five senses and confused in their motor manifestations, forced to measure themselves continuously with games inside a house or a school and often by themselves, showing little imagination and little creative quality at a dynamic level. Consistently with these considerations made in the designing phase of the project, the evaluation phase allowed us to verify the following:

- The "perceptive space" (what can be experienced with the senses) and the "representative space" (the places where to fantasize) were experienced by most of the children involved as symbolic and associated places, from the personal construction of the "secret garden" to the need of appropriation of a space;
- The symbolism evoked by the activities concerning the "secret garden" allowed most of the children involved to regain possession of a non-time dimension where they could measure themselves against the sense of sacredness, within a "poetic space";
- The "secret garden" as a symbolic place was experienced by most of the children involved as a "transitional object" educating them to express their emotions freely and promoting a catharsis through the feeling of taking possession of a space;
- Entering the labyrinth meant for all the children involved, to measure themselves against new and unforeseen situations and to face all the trials along the way, to live up to the problem and to manage to get out of it. This had a strong impact on the sense of self-esteem in all participants.

III. RESULTS

These are the experiment data to support the main idea about this research:

- A decrease in anxiety levels in some children, in particular in non-Italong children who were able to experience and express emotional experiences with stimuli not based exclusively on linguistic aspects;
- An increase in their sense of self-esteem and effectiveness in most of the children involved, to support fears and uncertainties present in the class-groups, close to a phase of school transition from kindergarten to primary school;
- A generalized increase in the capacity for emotional regulation; the maze game also serves to avoid - representing it - the anguish of feeling alone, lost and disoriented, being forced to control one's sense of uncertainty. Two stages were really important for this project to be meaningful: entering the labyrinth and facing the mystery constitute the first part, in which the actors in the game experience the loss of themselves, while returning to the light represents a new birth and attests to the continuity of life. In particular for preschoolers, it signifies getting in touch with the dark and instinctive part of the self. It was also important to connect to the sense of trust that, through collaboration, which served to become aware and able to control one's own instinct, representing a first experience of oneself in terms of development and management of one's own potential (empowerment managing) and personal effectiveness.

IV. CONCLUSION

The experience achieved the educational goal that I and the other two teachers who took part in the project had set when planning the activities. The project was carried out in a period close to the school transition from kindergarten to primary school. It involved 72 children in play-motor activities centered on the symbolic path of the labyrinth. The aim was to encourage and teach each child to search for his or her own "secret garden", which is that special place in which they could "feel good". A special regard was given to increase their self-confidence and a good relationship with the master figures considered significant; seeking independently the exit from the labyrinth but relying on the educator in moments of difficulty (for
example, the feeling of being lost in the labyrinth) to receive the necessary support. This, in fact, recalls the relationships of attachment and in particular the relationship with the mother figure. According to Jung, the heart of the labyrinth recalls the maternal uterus and Ariadne’s thread, the umbilical cord. The Minotaur is an embryo, the disturbing shadow of unexpressed possibilities, with which everyone is called to confront. For Jung, the Minotaur is the archetype of the devouring maternal image and the path of the soul towards the balance of its own self and the labyrinth with its infinite possibilities represents, as a consequence, the mental itinerary that has accompanied man throughout history and his tortuous journey towards self-awareness. The symbolic journey through the labyrinth is therefore an adventure to face the unexpected events, learning to measure oneself against the dimension of being able to adapt, and recognizing the master figures one can rely on in moments of difficulty while seeking new goals and solutions in the continuous construction of oneself. Another important objective achieved by the project was to facilitate the recognition of emotions related to new experiences. This important capacity will come helpful to meet the subsequent demands that children will necessarily have to face in the next school cycle of primary school. Finally, from the observations and reflections that emerged from the three class-groups that participated in the project during the circle-time phase carried out at the end of the activities, it was possible to verify that the use of the labyrinth as a symbolic path was functional in promoting the acquisition of a "complex" thought (full of emotions, fear, doubt, anxiety of making mistakes, yet at the same time courageous and ethical) because the idea of the path in its own advancement - among doubts and uncertainties - has proved to be practical and effective to educate to elaborate a "complex thought" as it builds the network of its own knowledge, as infinite as its wandering in the labyrinth and structurally unlimited because it grows at every instant and at every instant is different from the one before, therefore ultimately, globally always unknowable. Finally, the experiment of "labyrinth" and the search of a "secret garden" in which to "feel good", in general, confirmed in all participants that ecological learning is an effective exercise in pre-school age to stimulate the activation of problem-solving and adaptation strategies, necessary for the following primary school cycle.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

AUTHOR CONTRIBUTIONS

Stefano Costantini completed this work independently, including analysis of literature and write the paper.

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