

Proceedings

Imagination for Creative Adaptation a Bridge between a Child's Interior and Exterior World †

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Abstract: Current generations have to keep up with the ever faster changing society, learning to be more flexible and adaptable, so that they can deal with its complexity. Children are a clear demonstration of the division between internal timings and methods and those originating from the environment in which they are immersed. Within this paradigm, the educational environment represents the ultimate ground in which to promote *creative adaptation* as a result of a complex interaction at the *contact boundary* between the interior and exterior world. Through the use of imaginative activity as learning tool, children may develop the awareness of their abilities, skills and qualities. It enables them to express all their fears and fantasies, thus decreasing stress levels.

Keywords: emotions; imagination for creativity; imagination as a pedagogical tool

1. Introduction

The contemporary world is characterized by fragmentation and extremely fast rhythms that make it difficult for people to be fully present moment by moment: there is no time for tranquillity or reflection. In an age where children experience accelerated paces that are not suitable to their natural rhythms, it is crucial to look for new tools that allow them to learn how to 'feel good'.

It is necessary to intervene before stressful situations become endemic and result in severe discomfort or real pathologies. In an age where children experience accelerated paces that are not suitable to their natural rhythms, it is crucial to look for new tools, simple methods such as movement and breathing, that allow them to learn how to find a balance.

Within this context, educators are requested to carry out an essential mission to promote *creative adaptation* [1]. The educational environment, in fact, is not only the institutional place where knowledge is churned out, but it is also where encounters carry, move, animate, and awaken desires, and where the opening towards new worlds occurs [2]. Creative adaptation is the result of a complex interaction between an organism and an environment in a real contact established between the two of them, in a specific place and time. This interaction is also known with the term *contact* [1]. The word brings together several operations that refer to psychological (visual, emotional, and thought contact) and biological functions.

This contact, aimed at creative adaptation, can be facilitated through imaginary actions. According to P. L. Harris, imaginary situations may activate the emotional system in the same way as real situations. The activity of imagining is a kind of "imagination of the real" that can trigger the emotional system almost in the same way as a real life situation [3]. Observing the images of the mind is a process similar to looking at the objects of the world: both the processes involve the same brain areas: some of those related to vision, as well as other areas.

In addition to intrinsic impetuses, the imagination needs constant reinforcement from external factors, such as adults and educators who offer support and recognition, in order to grow.

Richards and Kinney found strong correlations between adult creativity and childhood imagination [4].

The imagination is an extremely effective learning tool. Its use strengthens concentration and memory, improves school performance, and increases progress in sports. The use of positive and relaxing images helps us reduce stress. Many medical studies state the effectiveness of imagination in the treatment of diseases. People learn best when they are relaxed. Information is more accessible when brainwaves are slower. When we are isolated from the distractions surrounding us and focus on breathing and muscle relaxation, the rhythm of our brainwaves slows down. Every image of the real things that we have experienced, observed, smelled and touched, is kept as a representation in our memory. The senses play a paramount role in learning and we can use them to bring these memories to the surface. Short imagination exercises help the child to adopt and perceive full self-awareness and to focus on existence [5].

Our body also responds to our imagination. When we “imagine” a particular movement, the brain transmits this knowledge to the muscles of the body. So, if the mind can imagine a potential movement, this can really happen.

The imaginary world represents an opportunity to escape from the often contradictory dynamics of today’s world, yet it stimulates children who are less oriented towards verbal expression to express their ideas by creating contact with the outside world. After an imagination activity, children express their feelings as part of a group. In fact, when they feel the reactions of the others to imagination exercises, they realize that their fears, dreams and desires are similar to those of the others and, for this reason, identify their experiences with those of the peers.

Through imaginative techniques, children can come into contact with their own fears, capacities, dreams, and desires, becoming aware of their abilities, skills and qualities and allowing them to express their concerns and fantasies. This pedagogical tool is the gift that teachers and parents may offer to children to learn self-acceptance. When mastering this, the child will find a creative way to accept others as well.

Imagination and relaxation exercises allow us to increase awareness, calm emotions, and balance internal and external life. The result is probably a balanced self that demonstrates respect and love toward him/herself and others.

2. Research

Imagination exercises, such as meditation, have been the subject of several studies. Psychology, education and neuroscience show teaching meditation in schools is having positive effects on students’ well-being, social skills and academic skills. A recent meta-review of the impact of meditation in schools combined the results from 15 studies and almost 1800 students from Australia, Canada, India, the UK, the US and Taiwan. The research showed meditation is beneficial in most cases and led to three broad outcomes for students: higher well-being, better social skills and greater academic skills.

Students who were taught meditation at school reported higher optimism, more positive emotions, stronger self-identity, greater self-acceptance and took better care of their health as well as experiencing reduced anxiety, stress and depression. This was compared to before the meditation programs and compared to peers who were not taught meditation.

The review also showed that meditation helps the social life of students by leading to increases in pro-social behaviour (like helping others) and decreases in anti-social behaviour (like anger and disobedience) [6].

Finally, meditation was found to improve a host of academic and learning skills in students. These included faster information processing, greater focus, more effective working memory, more creativity and cognitive flexibility.

A study by David Harrington, Jack Block and Jeanne Block, shows how four- to five-year-old children who manifested imagination and sensitivity to the constraints and requests inherent to the proposed tasks, maintained a good level of creativity even at eleven years of age [7]. In fact, Harrington, Block and Block note that parents who offered children an environment that fostered

diverged thinking and intellectual adventures are more likely to ensure the same conditions even six or seven years later.

Many schools have included meditative practices, such as in Australia (Smiling Minds, Meditationcapsules), India (The Alice Project), the UK (Mindfulness in Schools Project), and the US (InnerKids, Mindful Schools, MindUp, Learning to Breath).

However, it is not necessary to go that far: the De Amicis Comprehensive Institute of Tremestieri Etneo (CT) is the only school in Italy where meditation is practiced. The results showed improved concentration when studying and an increase in learning skills. The stress levels of the students, more stratified than that of adults, decreases to give way to great benefits, even reaching 10 min of transcendence. In fact, people learn when they are more relaxed. Information is more accessible when brainwaves are slower. When we are isolated from the distractions surrounding us and focus on our breathing and muscle relaxation, the rhythm of our brainwaves slows down. It is said that Einstein used both brain hemispheres simultaneously; his ideas were created first as visual images and then transformed into words and mathematical equations. In his opinion, the most important aspect of intelligence is the ability to use the imagination with the information known [8]. It is also true that the educational system still has some limitations regarding teaching methods based mainly on left hemisphere activities, thus neglecting the genius that depends on the simultaneous operation of both hemispheres. The use of imagination, even after a verbal, written, or artistic activity, is the only way to use the whole brain [9].

Many studies have tested the effects of meditation in primary and secondary schools on improved executive functions including: enhanced self-control and self-awareness (in children aged 7–9 years) [10]; improved attention spans [11,12]; diminution of anxiety and stress [13]; reduction of aggressive and misleading behaviour in children and adolescents [11].

Researchers at Northeastern University in Boston investigated the benefits of meditation on the exterior and interior state of those who practice it. In particular, they noted that meditation encourages empathy among people and promotes positive feelings and virtuous behaviour, bringing them back to the fore even after a long period of inactivity due to constant daily problems, a hectic lifestyle and social conventions.

Another relevant case study is that of Visitacion Valley Middle School (VVMS), which introduced Quiet Time—a programme aimed at reducing stress through transcendental meditation. The teachers were trained to implement it with the students. Since the introduction of Quiet Time in 2008, suspensions have been halved and unjustified absences dropped by 61%. In 2010–2011, only 7% of students had unjustified absences compared to 18% in July 2006.

The scholars Lazar & Kerr studied the effects of meditation on the cortical thickness of the brain: “The regular practice of meditation is associated with increased thickness in a subset of cortical regions related to the somatosensory, auditory, visual and interoceptive processing pathways. Furthermore, regular meditation practice may slow the age-related thinning of the frontal cortex.” [15] (page 1896).

Thus, meditation practice increases the cortical thickness of the brain, protects the body from illness and significantly improves attention and concentration.

Since there is no function of the organism that does not interact with the body/environment, meditative practice may act as a bridge between the interior and exterior world of the individual. The child, trained in guided imagery experiences the encounter at the contact boundary with the world. The border is like a skin, a living tissue that allows the containment, separation, and communication between the inside and outside of the body. In fact, that border is not only the interface that connects to the outside world, but it also connects to the inside world. (The “I-Function” expresses the ability to identify or alienate oneself from parts of the environment (this is for me, this is not for me), the power to desire and to decide what characterizes the uniqueness of individual choices. It intervenes in the process of creative adaptation by making choices, identifying with some parts of the field and getting away from others. The “I” is the function of the self that gives a person the sense of being active and deliberate. The self spontaneously exercises this intentionality and develops with strength, awareness, excitement, and ability to create new forms.)

“The “I” of the mind (the headquarters of consciousness, reflective thinking, memory, projection into the future, assimilation and alienation choices) is thus able to move inside through an *interface* and to make mediation choices within a polarity connected between the two opposite borders of interaction “[16] (p. 85). The quality of the border says something about the relationship between the body and the environment in their mutual reference. “What is decisive is that the creative self (I-function), depending on the moment and the corresponding conditions of the organism-environment field, may from time to time achieve the requested border qualities, i.e., admission, rejection ...”[17] (p. 37).

The barrier/contact function is identified based on internal and external stimuli. The contact is present in both situations and the meditation guided with images may promote and facilitate this presence. How? Being successful means being in contact with the external area, i.e., other individuals and the environment, moving back and then connecting with the middle or internal zone. During meditative practice, the child learns to be aware of and to take into account his/her internal needs (such as tiredness caused by an uncomfortable position), and external needs (such as the necessity to finish a task). Between these two areas (internal and external) there is the so-called middle zone (thus defined by Gestalt’s psychotherapist founder, Fritz Perls), i.e., the mind. This is the space where people imagine, speak, think, remember, plan, recite. One becomes aware of the internal way in order to encounter the external one and to shuttle from one to the other through a continuum of awareness.

3. Conclusions

Today’s children, more than those of decades ago, have an intrinsic wisdom that allows them to clearly see both present and future and their growth takes place at a complex, rapid pace. For this reason, offering them stimulating learning models is not enough; reinforcing what children already know is also crucial. Many students “unlearn” what they know because their knowledge is not recognized. In this regard, imagery techniques represent the tools to help children recognize what they already know and to accelerate learning. We all use our imagination regularly and unconsciously, not realizing that we can take advantage of it. Several studies confirm the benefits both from a learning and a psychophysical well-being points of view. It is true that qualified specialists use guided imagery imagination in their therapy, but the purpose proposed here is to let people (adults and children) experience a fuller and more creative way of life. Imaginary practice can therefore be validated as a potential pedagogical tool.

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