

## **BIODANZA SRT COME STRATEGIA EDUCATIVO-FORMATIVA SPERIMENTALE NEL CONTESTO SCOLASTICO. LA MEDIAZIONE CORPOREA NEI PROCESSI DI APPRENDIMENTO**

### **BIODANZA SRT AS AN EXPERIMENTAL EDUCATIONAL- FORMATIVE STRATEGY IN THE SCHOOL CONTEXT. CORPOREAL MEDIATION IN THE LEARNING PROCESS**

**Roberta Rosa**

IUL – TelematicUniversity (Italy)  
robertarosa68@gmail.com

**Antonio Ascione**

University of Bari “Aldo Moro” (Italy)  
antonio.ascione@uniba.it

**Davide Di Palma**

University of Naples “Parthenope” (Italy)  
davide.dipalma@uniparthenope.it

#### **Abstract**

Il paper riguarda il ruolo ed il valore educativo-formativo della Biodanza SRT all'interno della dimensione didattica. Corpo e movimento come medium di conoscenza e condizioni fondamentali nei processi di apprendimento e nello sviluppo della consapevolezza di sé, abilità di relazione, comunicazione e competenze sociali.

L'obiettivo è di evidenziare come interventi di Biodanza SRT in contesti scolastici possano facilitare apprendimento, atteggiamenti empatici, autostima, autoefficacia, comportamenti pro-sociali e di inclusione contribuendo a sviluppare le potenzialità umane e valorizzare i talenti incentivando la crescita personale (empowerment).

This paper deals with the role and educational value of Biodanza SRT within the didactic sphere. Body and movement are both means for providing knowledge and fundamental conditions in the learning processes and in the development of self-awareness. They are the basis for the enhancement of relationship skills, communication and social competences.

The aim is to highlight the way Biodanza SRT interventions applied in school contexts can facilitate learning, empathic attitudes, self-esteem, self-efficacy, pro-social and inclusion behaviors, developing human potentialities and enhancing talents by encouraging personal growth (empowerment).

#### **Keywords**

Educazione, Biodanza SRT, Mediazione Corporea, Empatia, Apprendimento  
Education, Biodanza SRT, Corporeal Mediation, Empathy, Learning.

## Introduction

*“It can be said that preserving and increasing people’s dignity, skills and well-being in relation to others and nature, should be the main purpose of the 21st century education. The humanistic values that should form the basis and purpose of education are: respect for human life and dignity, equal rights and social justice, cultural and social diversity, sense of human solidarity and shared responsibility for our common future. A dialogical approach to learning is required and encouraged (Morgan, Guilherme, 2014; Roberts, 2000). It is also our duty to reject learning systems that alienate individuals and treat them as mere products, in addition to the social practices that divide and dehumanize people. It is essential to educate to these values and principles if we are to achieve sustainability and peace”*(UNESCO, 2015).

To meet the many and increasingly complex educational needs that School Institutions have to face means to implement innovative educational practices that are not only easy to understand, but also functional to the learning and personal development of students as the main protagonists of the educational-training process.

The concept of embodied cognition focuses on the assumption that cognition is strongly rooted in the body (sensory-motor-emotional system) and in the action, in addition to being deeply located/interconnected with the environment (intersubjectivity) in which the organism lives and acts (Maturana, Varela, 1987; Varela, Thompson, Rosch, 1992; Gallese, 2013).

It is an idea of knowledge based on the complex paradigms of the bio-psycho-social, on neuro-diversity, human development and its ecological dimension, which allows us being open-minded in response to the different needs of students and of the world of school (Mufanò, 2017).

Children, in particular, show a natural interest in movement, rhythm and dance, which, induced by the action of music, is capable of directly influencing the emotional sphere; therefore, it helps significantly increase a person’s vitality and develop his/her social relationship skills (Bebetsos, Goulimaris, 2014; Goulimaris, Filippou, Koupani, 2016; Voutsina, Goulimaris, 2016), by improving his/her behavior (Rosa, Donini, De Luca, 2019).

The Biodanza SRT System (Rolando Toro System) is a body-mediated Social Pedagogy that, by acting on the healthy part of the person, is able to stimulate human potentialities and enhance talents by encouraging personal growth (empowerment); it is the subject of scientific research works and practical applications in the educational field, which move from the embodied perspective. Through the interaction of music, movement/dance and group meetings, the Biodanza SRT methodology determines the increase of self-esteem, self-awareness (inter-personal dimension), empathetic and relationship skills (inter-personal dimension). By promoting people’s ability to empathize (identification with the emotional experience lived by others), it stimulates socialization (reducing the risk of isolation), increases personal empowerment and resilience, and promotes greater skills in adopting appropriate and effective behaviors in different situations of life.

The educational value of Biodanza is achieved thanks to the way the subjects live situations, recalling their personal history, their past experience, thanks to which they can attach meaning and uniqueness to the activities in which they are involved. Therefore, the motor action embodies the dimension of the lived body, i.e. the Leib, in the material body dimension, i.e. the Körper (Isidori, 2002), in the psycho-physical unity of the subject, adding cultural relevance and values to the educational context (Ceciliani, 2018).

Boosting Biodanza SRT interventions in school contexts facilitates motivation to learn and self-esteem, self-efficacy, personal empowerment, inclusion and pro-social behavior.

### **1. Living the School through the Body: Pedagogy of Corporeality and Cognitive Neuroscience**

Human movement, understood as a way of “acting with a purpose” and proposed through protected didactics, is able to restore a more functional neuro-sense-motor way to achieve suc-

cess in school practices. (Lodi, Seghi, Barbieri, Lovecchio, 2018).

Body and movement mediate knowledge (Moliterni, 2013) and can reveal aspects that would otherwise remain hidden and undiscovered. Movement is understood as a language which is totally integrated in the development process of personal autonomy in all its aspects, i.e. that morphological-functional, intellectual-cognitive, affective-moral and social, and contributes to the process of the person's holistic formation.

The bodily experience, as an existential and pragmatic field of human being expression, in which cognition is not simply performed but rather enacted, represents an extremely interesting field of study also for its tangible effects in terms of education (Francesconi, 2011).

In recent years, educational sciences and cognitive sciences are rapidly widening the boundaries of their collaboration (Fischer, Daniel, Immordino-Yang, Stern, Battro, Koizumi 2007), both with regard to the classical themes of learning, memory, attention and language, but also with regard to those of consciousness and body (Francesconi, 2011).

The commonly recognized paradigm of the Embodied Theory (embodied knowledge), developed twenty years ago and now becoming established in the cognitive sciences, is leading researchers to shift their interests from the study on the mind as such to the study on the ecological mind, i.e. the mind that is ontologically interdependent with the body and the environment (mind-body-environment).

The focus is precisely on the role of the body in the process of the shaping and development of cognition and identity (Capuccio 2006; Gallagher 2005). Francisco Varela, by combining recent trends in cognitive neuroscience with the theory of complexity, proposes an epistemological path mainly aimed at reconsidering, including and focusing on the role of the lived experience (Varela 1996; Varela, Thompson, Rosch 1991).

He then changed the study on the mind: from a neutral condition to a situated one, where the object of study must be the mind in its four dimensions, i.e. embodied, embedded, extended and enacted (commonly called the "4 E"), or the mind embodied in the subject, rooted in the environment, dependent on social relationships and enacted (Clark 2008; Varela, Thompson, Rosch 1991).

Human beings, due to their evolutionary growth, need to strongly recover their relationship with life through their corporeal being, i.e. that indivisible unity resulting from the interconnection between body, mind and spirit.

"The first discovery that the child makes is the body, therefore also the first undetermined sensation of our bodily existence produced by the sensitivity of our internal organs is the coenesthesia, a fundamental and prethetic feeling of our existence" (D'Alessio, Minichillo, 2010). The corporeal reality is the first reality that the human being phenomenologically encounters thanks to our coenesthesia: a form of self-consciousness that allows us to perceive our body through the sensations conveyed by our internal organs (Garofano C. 2016).

The body is the reality that defines us, reveals us, represents us, and allows us to act, to communicate, to change reality.

The corporeal and the non-corporeal provide different levels of knowledge, and collaborate with each other in a constant interaction. We cannot only think that we have a body, but above all, we must think that we are a body (Balduzzi, 2002); we must realize that we are in a constant relationship not only with our own experience, which we gradually build up day after day, but also with all the other bodies and the environment in which we live.

The body is a mediator of knowledge. Thus, the involvement of the body in cognitive processes is all-encompassing and involves brain, heart, and nerve endings; everything contributes to the continuous flows of exchange between people and the surrounding world. It is precisely through the senses that people learn to move in the world, to understand and recognize it from their very first steps. The senses become explorers of the environment and pave the way for gaining knowledge (Montessori, 1970).

"Before the mental awareness of having a body springs, children have to realize that they themselves are bodies (..), searching for the experience of living a corporeal self capable of

attaching meaning to the world” (Gamelli, 2002).

“Harmony makes man a microcosm: corporeality is a small universe that encompasses the harmony of the macrocosm. In short, the body is much more than a material aggregate; it is the appearance of the complete man, an expression in which man manifests himself within himself, his being, his presence, his first action, his symbol, his word, his incarnation, his interiority that opens up” (D’Alessio, Minchillo, 2010).

Corporeality must therefore be considered in a unitary perspective, placed in the invisible framework of personal reality. Education cannot disregard corporeality, and when we speak of didactics of corporeality we are speaking of a body that allows the mind learning as a corporeal mediator.

All human experiences are necessarily mediated by the body, because “the body is the means through which human beings can conceive the world in its entirety. It is only through activity that they are able to determine what can be an experience of the world itself” (Gomez Paloma, 2014).

In the educational-didactic field, Embodied Cognitive Science offers many insights that contribute to the full recognition of the importance of the body in the knowledge mechanisms (understood as an active process that is deeply rooted in the individual’s body and in his biology). The enaction is a natural continuation of embodied theories; in fact, according to the enactive approach, the action is the focus of cognition, together with the sense-perceptive mechanisms that condition the way the subjects act with respect to their surrounding reality. Therefore, “the work carried out within and through the body, through the use of appropriate strategies, would create the conditions for a didactics that does not predetermine and plans, but anticipates and foresees the consequences of an action” (Rivoltella, 2013).

The pedagogy of the body is a formative attitude that integrates knowledge and experiences, which contemplates the experience of the body as a source of learning, thus transferring the principles that underlie body education in its various forms (motor activities, sports, dance, theater, and so on) into formative areas, bringing out an educational style based on their countless languages.

The principle of Embodied Cognition states that reasoning, thoughts and concepts depend on the way we perceive, the actions we perform and our interaction with the outside world.

On the other hand, Embodied Simulation is a concept that involves both motor action and the aspects of the interpersonal relationships, i.e. emotions, sensations, and communication (Gallese, 2005, 2006), and is a mechanism that makes us directly understand the aspects of an action and of the experience through observation. The simulation embodied in the observer generates internal representations not only of actions, sensations and emotions, but also of the body states associated with them.

Embodied Simulation works together, and in parallel, with Standard Simulation; it can be said that it is at the basis of Social Intelligence.

Embodied Cognition and Body Pedagogy are part of the scientific community that supports the inclusion of new methodologies and practices (motor and sports activities, dance, theater, Biodanza SRT) in school contexts, using a purely laboratory-based method, useful to improve the physical and mental performance of students through the playful-motor activity which uses the unexpressed potential of the body and the brain.

By integrating practical sensory-motor exploration and representation- symbolization experiences, these activities promote also the learning and cognitive growth of the child, the young person, thus the future adult.

## **2. Living the School through the Body**

Contemporary school has to overcome the way of doing education which is now focused only on ranking students, aiming at the obsolete objective of defining the eminently didactic ef-

fect (Visconti, 2011), and believing to evaluate only that part of the child in his/her exclusively reductive expression related to productivity and performance. Schools must begin to realize the importance of educating beyond words and the extent to which it is important for children to give expression to their thoughts, and must learn that knowledge is embedded in the biography of the children themselves.

The body, whether belonging to the child, the teacher, the principal or the school employee, lies always at school. Thanks to the theory of the Mirror Neurons (Rizzolatti G., Sinigaglia, 2006; Rizzolatti, Vozza, 2008; Gallese, 2007) it has been shown that the sensory perception of knowledge, action and what happens outside of us, interact simultaneously with each other.

In order to understand the emotional states of the other (empathy), we must first understand the actions of the previously experienced bodily dialogue. Therefore, an experiential teaching model is definitely more effective than the traditional transmission-based one, because knowledge can be acquired through an integrated mind-body process, through emotional experience and explorative motor experiences that also activate the pleasure of living the body in relation to the world, the space, and the objects (Gamelli, 2006).

Promoting self-awareness by learning to know one's own emotions in order to better control the various situations in real life and to have an open and positive attitude towards others, things, concepts, and therefore knowledge, means orienting the training context in the sense of metacognition and metacognitive-emotion (Roche Olivar, 1999).

In the educational context, a focus on cognitive skills alone would lead to the formation of individuals unable to manage themselves and reality. Multiple intelligences and emotional-affective intelligence should also be supported, as they foster "the ability to recognize our feelings and those of others, to motivate ourselves, and to positively manage emotions, both internally and in our relationships" (Gardner, 1983/1993, 1999, 2010; Goleman, 1998; - Toro Araneda, 2012, 2017).

From a didactic point of view, it is necessary to seek the balance between the spontaneous dimension and the need to educate in order to "indicate a path that leads to well-being and happiness", and which can confirm that another type of school is possible (Aldi, in Aldi, Belvedere, Coccagna, Locatelli, Pavone, 2013).

On the basis of this, school learning and the whole educational process can be considered significant only when the whole personality of the subject is involved, at a cognitive, emotional and organismic level, and in an experiential way (Rogers, 1973).

Living the school through the body means identifying it as a place to live and not to attend, considering it as a place where dynamic and affective relations are established by means of a didactics aimed at giving substance to knowledge, meeting the students' natural ability to learn and making them live it as a place where they feel good and welcome.

Consequently, the school context can be considered as a privileged space of growth where the child's identity develops through emotional and relational processes, which take on a central role and are manifested in the interaction with peers and teachers (Renati, Zanetti, 2009).

### **3. Biodanza SRT in school contexts: experimental educational-formative strategy in the learning and empowerment processes**

The word Biodanza is composed of the prefix "bio" (which derives from the term "bios" and means "life") and the word "dance", which in French means "integrated movement full of meaning". In a semantic sense, therefore, it refers to the dance of life, where dance is understood as an integrated movement full of life (Fernández, 2012).

The Biodanza system was developed by Rolando Toro Araneda in the 1960s as a system of integration and development of human potentialities that employs dance/movement, music and group meeting situations as methodological resources to induce integral experiences (Merlo, 2015) called *vivencia*: "the experience lived by an individual with great intensity, in the present

moment (...)"'. (Toro Araneda, 2000).

It is a body-mediated Social Pedagogy based on the spontaneous manifestation of emotions, which allows for a new way of living one's life through intense experiences induced by dance, singing and group meetings. This occurs in situations where music is the instrument that mediates between emotion and movement (Toro, 2007), the aim of which is to allow people entering into contact with themselves and their emotions, feeling their body, developing their potentialities and expressing their identity.

Biodanza SRT promotes the expression of moods and emotions experienced in a facilitating, non-judgmental and creative atmosphere, with the aim of stimulating people to use their resources and develop their strengths and empowerment, intended as a condition of self-confidence linked to the ability to experience themselves and confront themselves with the surrounding reality.

Neuroscientific studies have demonstrated that emotions are complex entities involving neuropsychological, cognitive and behavioral control systems, associated with thought, memory and learning, which are mutually influenced (Mercenaro, 2006).

Based on this, any kind of learning would therefore be emotionally marked, becoming enjoyable or not depending on the emotional experience associated with it (Castex, 2000).

Emotional competence, therefore, can be defined as a functional ability that is fundamental in order for the individuals to achieve their objectives (Saarni, 1999; 2000), consisting of skills that are particularly linked to showing self-efficacy in interpersonal relationships.

In the educational-training process, emotions are a great resource since they come into play by stimulating intentionality, participation, the desire to learn and motivation for acquiring knowledge. Emotions become a valid tool able to focus attention, to set contents and experiences, to facilitate internalization and memorization by acting in the depths of the intelligence by generating real, natural, long-lasting learning which, in turn, increases the desire and willingness to learn and contributes to making learning itself deeper, more conscious and more meaningful for people.

Introducing Biodanza SRT as an educational tool in school and Existential Re-education contexts is becoming an increasingly widespread practice in Italy and worldwide.

Scientific evidence has shown that it has positive effects on stress reduction, on the change in the way of thinking and feeling, increases the sense of competence and effectiveness, improves mood and mental health, and enriches emotional intelligence (Abad, Castillo, Orizia, 2014; Castañeda, 2004, 2009; Fernández, 2012; Mueller, 2012; Villegas, Stuck, 1999), thus helping people achieve a good level of self-esteem, personal empowerment and awareness of their abilities, in order to act and find solutions.

Research on the effects of a continuous Biodanza activity in school age is progressively increasing. The outcome of some research works has shown that Biodanza SRT is a good method to clearly improve emotional intelligence and self-esteem among students, with a fair impact on the improvement of motor aspects such as aerobic power and agility (López, Fierro-Suero, Fernández-Ozcorta, Sáenz-López Buñuel, 2018), through which significant variations on Alexithymia, i.e. on the "emotional illiteracy" (Giannelli, Giannino, Mingarelli, 2015), are also detected.

Further research works on school age have shown that the levels of cortisol in the body decrease, leading to a reduction in stress useful to enhance the recognition of emotions, the focus and the enhancement of social skills (Stueck, Villegas, Lahn, Bauer, Tofts, Sack, 2016; Stueck, 2010; Stueck, Villegas, 2008; Stueck, Villegas, 2012; Stueck, Villegas, 2009; Stueck, Villegas, Terren, Toro, Mazzarella, Schroeder, 2008; Stueck, Villegas, Schoenichen, Bauer, Tofts, Sack, 2013).

The outcomes obtained from a study focused on Biodanza SRT interventions proposed to minors subjected to restriction showed a qualitative relevance of the experience lived by prisoners in all the estimated aspects, i.e. that cognitive-behavioral, emotional, motivational and relational, in addition to facilitating the adoption of socially accepted behaviors that underpin their reintegration into civil society (Rosa, Madonna, 2019; Rosa, 2019).



The inclusion of Biodanza in the educational institutions should be considered as a body-mediated pedagogical strategy suitable to contribute positively:

1) To the development of social skills, empathy and inclusion.

The Biodanza SRT methodology is constantly aimed at raising awareness of both one's own and others' needs and of behaviors different from one's own, thus developing empathetic attitudes in people that foster better positive relationships with others and social relationships, pro-social behaviors, cooperation and inclusion.

2) To "emotional literacy" and empowerment.

Adopting Biodanza SRT is a useful strategy to undertake and deepen an emotional education path capable of contributing to the enhancement of the ability to understand and recognize the emotions and others, and to prevent alexithymia (Giannelli, Giannino, Mingarelli, 2015). All this by adopting attitudes and behaviors that are adaptive (Antognazza, Berger & Sciaroni, 2009) and functional to the achievement of people's psycho-physical well-being (Kindlon, Thomson, 2002) and their sense of individual responsibility (empowerment).

3) To the development of emotional-affective and socio-relational skills that are crucial for the development of learning processes and the achievement of school profit.

The education to emotional-affective competence and metacognitive strategies are fundamental for supporting the development of cognitive, learning and performance success skills (Csikszentmihalyi, 1992).

According to all these considerations, the inclusion of Biodanza SRT in the school environment contributes to increasing the cross competences of the school-age child, closely related to cognitive development, to the knowledge about relational (intra-personal and inter-personal) and communicative skills (ability to understand and categorize signals coming from others).

Many research studies have shown that the empathetic ability allows individuals to recognize other people's mental and emotional states; therefore, by identifying themselves in the emotional experience lived by others with whom they come into contact, they adopt behaviors that are more effective and more appropriate to different situations. Hence, social interactions also facilitate emotional balance (De Waal, 2012) by improving resilience.

In the educational context, the inclusion of Biodanza SRT facilitates empathetic attitudes, contributing to the development of the emotional factor not only in its intra-individual dimension, in which the subjects increase self-awareness and know how to regulate themselves, but also in its inter-individual dimension, in which children are able to recognize and understand the experiences related to personal and relational life.

A path that foresees the inclusion of Biodanza SRT in the context of programs of education to the emotions addressed to the children in the class group is aimed at promoting self-efficacy, the increase in self-esteem, and the ability to explore the emotions experienced, fostering the development of empathetic skills and the collaboration/cooperation with others.

The transformative, educational and didactic potential of Biodanza SRT is based on body-mediated training processes capable of triggering an existential change that is closely linked to the enhancement of social skills, such as the ability to express one's own emotions (and reading those of others), cooperate and empathize. In addition, these processes should contribute to personal evolution, develop social relationships and improve the quality of life (Rosa, Donini, De Luca, 2019).

Through the languages of the body and the emotions, this system promotes the integration between learning and cognitive knowledge by fostering emotional education, the global and harmonious development of the person (Toro Araneda, 2012), the Existential Rehabilitation (bio-psycho-social) and the Personal Empowerment (Rosa, De Vita, 2019).

Biodanza SRT turns out to be an important strategy for preventing emotional distress, being a real work of emotional literacy. The process of affective-emotional education is based on the strengthening of personal factors and skills, able to stimulate multiple intelligences and to foster balanced and functional emotional reactions (Rosa, De Vita, 2019).

## Conclusions

The movement is “an educational tool for relating and communicating, easing tensions and disagreements, stimulating learning, enhancing different personalities and functionalities. To do all this, it is necessary to act intentionally and make students aware of these intentions and actions, starting from the analysis of the context and of their needs, from the observation of the class group and of their learning styles, in order to identify the most suitable teaching styles and make their motivations develop”. (De Anna, 2006)

In terms of learning (new knowledge) and education (life skills), Biodanza SRT is perfectly applicable in the school context as a body-mediated social pedagogy that, by activating the pleasure of moving and freely expressing oneself through one’s own diversity and uniqueness, it stimulates active listening, motivation to gain knowledge, autonomy, creativity, poetics of beauty and amazement, expressiveness and creative movement, facilitating a happy way of learning (involving not only the mind, but also the heart and emotions), personal empowerment and the ability to orient oneself in the world in a conscious and responsible way.

Biodanza SRT refers to an approach to the person in his/her integrity, uniqueness, diversity and complex nature, so that everyone can discover his/her own potentialities and talents through heuristic learning, i.e. by stimulating the emergence of spontaneous (heuristic) solutions to psycho-sense-motor and affective-relational stimuli, in order to make the students progressively able to perceive what the environment allows them to do according to their psycho-physical-motor skills, age, cross competences, potentialities and talents.

The task of the third millennium school is to ensure its students the full, recognized and shared development of their learning potentialities, as well as the effective possibility to aim knowledge, skills and competences at training their talents (Margiotta, 2016).

Valuing personal talents means stimulating the functions of the individual’s personality in all their aspects, by means of an ecological approach that places the subject in a continuous interaction with the surrounding environment.

It is through the education to talent that the educational process strongly contributes to the establishment of a sustainable society.

Biodanza SRT acts on the development of people’s emotional, relational and social skills, and is an excellent educational-formative strategy to be applied in all school contexts of all levels, being it suitable for men and women of all ages and diversabilities (the main requirement is not knowing how to dance), and therefore able to reach the entire school population: students, teachers, staff and principals.

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