SELF-REGULATED LEARNING AND METACOGNITION - THE CONTRIBUTION OF BIODANZA SRT IN PRIMARY SCHOOL

Roberta Rosa¹ and Pompilio Cusano²

¹IUL – Telematic University (Italy)
²University of Naples "Parthenope"

Abstract
The main goal of school is that all students, including those with Special Educational Needs, learn correctly by achieving positive results through learner-centered and learning-centered interventions, and educational projects based on a cooperative approach, aimed at bringing out the students’ potentialities and enhancing talents by contributing to the person’s overall formation. The aim of this paper is to highlight the way Biodanza SRT interventions in Primary School facilitate self-regulated learning process, metacognition, attitudes, and emotional-affective, relational and social skills. Practical experience lived by and mediated through the body and corporeality plays a key role in cognitive and metacognitive learning, in the integrated development of people, their social-relational skills and social inclusion.

Key words: Biodanza SRT, metacognition, self-regulated learning, cooperative approach, primary school.

Introduction
As explained in the National Guidelines, in the learning process, the teacher should consider the metacognitive (learning to learn), relational (knowing how to work in a group), and attitudinal (autonomy and creativity) skills as particularly relevant.

In metacognitive didactics, the focus is on developing students' knowledge about their mental understanding processes, contributing to the construction of identity, personal autonomy and Life Skills Education in Schools, thus on the development of the social, emotional and relational competences (WHO, 1997).

The educational objective of School is to ensure that all students, including those with Special Educational Needs, enjoying equal opportunities, achieve the highest possible degree of learning and social participation, by freely expressing themselves, their potentialities and talents.

A strategic student (Hadwin, Winne, Stockley, Nesbit, Wosczyna, 2001) can be defined as the one who critically observes his/her own work, self-organizes goals for the activities to be carried out, already knows and chooses the strategies and methods to apply, formulates and critically self-evaluates not only the achievement/non-achievement of the goal, but also the process that led to his/her success or failure. A student who experiments himself/herself, especially in cooperative labs, can gain more and more confidence in his/her own abilities - self-efficacy (Bandura, 1996/2000) and volitional skills, and constantly measures himself/herself against the other members of the group by facing and managing the various dynamics that may arise, respecting all the elements useful to team up and work together to reach a common goal.

Training for reaching self-regulated learning at school makes people able not only to work effectively by applying life-long learning, but also by developing the ability to learn in everyday life activities (at work or during leisure time). Practical experience lived through the body and corporeality plays a key role in cognitive and metacognitive learning, in the development of people, their social-relational skills and social inclusion.

Biodanza SRT, by enriching the baggage of motor skills and encouraging self-confidence, teamwork and group skills, in a context without judgment and without the demand for a performance achievement, becomes an opportunity for self-expression and for the development of creative skills, non-verbal communication and socialization. In recent years, the Biodanza SRT system has been introduced in different educational and/or rehabilitative contexts, arousing considerable interest also in tests and research activities aimed at investigating the effectiveness of the tool and its ability to offer an educational value aimed at strengthening identity, valuing talents and diversity as a resource, enhancing dialogue and exchange, and restoring quality to human relationships. (De Vita, Rosa, 2018).

Discussion
A Learner-centered and Learning-Centered school and the learning through cooperative groups
The main goal of School is that all students, including those with Special Educational Needs, learn correctly by achieving positive results through learner-centered and learning-centered interventions; this means that, in addition to the central role of the learner, it also needs to take into account that fundamental played by learning in general (Lambert, McCombs, 1998).
The guiding principles for a learner-centered and learning-centered school refer to cognitive and metacognitive, motivational and affective, developmental and social factors, and those related to individual differences.

A working strategy that is functional to the practical application of learner-centered and learning-centered interventions is the one based on the learning through cooperative groups. It aims at activating and developing the "others", seen as a resource, emphasizing the importance of the contribution and support of the peers that, by involving all actors, facilitate the development of both relationships and learning.

Besides a democratic climate, the basic elements for a cooperative approach are:

- Positive interdependence: there is no success/failure of a single component but of the whole group, as it is the result of the collaboration and efforts of all those who took part in it.
- Individual and group responsibility: everyone is responsible for his/her own and others' learning. The group has to reach objectives that will be carefully evaluated (individually and collectively), so everyone has to contribute to reaching them without hiding behind the work of the others.
- Constructive interaction: the members of the group must continuously interact, support and involve each other, putting everyone in a position to cooperate.
- Teaching the necessary skills in interpersonal relationships: by carrying out the work, students must be able to learn all those skills that allow them to "work well as part of the group" and with the group, in order to develop emotional-cognitive skills that are functional to structure healthy relationships.
- Evaluation of the group: all the members of the group must self-evaluate the work carried out from the point of view of the outcomes of the didactic, cognitive, behavioral and social objectives. (Johnson, Johnson, Holubec, 2015).

Cooperating means "working together with others to achieve common goals" (Johnson, Johnson, Holubec, 1996), in order to raise the level of all students (including those with Special Educational Needs), provide them with experiences useful for a healthy cognitive, emotional, psychological, social development, and build positive relationships to create a welcoming, inclusive community that values diversity as a resource of the common project. A didactic project must aim at the enhancement of talents through personalization, aimed at bringing out the natural potentialities and individual excellence in the various forms of intelligence (Gardner, Feldman, Krechevsky, 2002; Gardner, 1987).

"Intelligences can be seen as bio-psychological potentialities or attitudes, and can take the form of significant activities in relation to a wide range of cultural and environmental factors. [...] Individuals differ from each other since they possess different skills arising from both hereditary and environmental aspects [...] and each child possesses certain strengths" (Gardner, Feldman, Krechevsky, 2002; Gardner, 1987), and thus show natural diversity in relation to multiple attitudes and intelligences.

"A more inclusive school climate allows everyone feeling accepted, understood, and valued; it develops a sense of belonging, positive interdependence and strength (empowerment); it helps create solid bases, both at socio-affective ("I feel loved, respected, considered"), communicative ("Everyone listens carefully to what I say and they care a lot about my point of view"), and relational level ("I feel good in our class; there are friendship, mutual support, solidarity and the problem of one becomes the problem of all")". (Miato, Miato, 2003).

Self-regulated learning. The role of metacognition, affective-emotional sphere, environment, behavior and teachers' training

Learning can be defined as a multi-component process because, besides being extremely complex, varied and articulated, it is influenced (and in turn influences) not only cognitive aspects (attention, memory, metacognition), but also those affective-emotional-motivational ones.

In the learning-teaching dynamics, some generally neglected aspects are metacognition (which involves the ability to monitor one’s own understanding processes), the sphere of affectivity and emotions together with the role played by creativity and divergent thinking, and the empathetic and identifying relationship established between the actors (student/teacher). In addition, we can also find self-efficacy, the confidence that the student has in his/her own abilities (Bandura, 1996/2000), as well as the confidence that the teacher has in the student’s abilities (Ianes, Cramerotti, 2009; Ianes, Macchia, 2008), whether being a student with or without Special Educational Needs.

At the heart of the teaching/learning dynamics is the learner, and when both a good educational relationship (teacher-student) and a good didactic methodology (cooperative, facilitating, and metacognitive) are implemented, and continuous flows of information exchange (between the teacher and the learner) are created, a qualitative and quantitative increase in the learner’s abilities/action performance can be observed (Ianes, Macchia, 2008). In Primary School, acquiring metacognition means above all learning to monitor mental processes (both cognitive and emotional), involving the emotional-empathetic, affective and social aspects.
Difficulties in understanding processes generate problems in students, and this leads to their school failure. Students need to become more self-aware by providing them with strategies and tools useful to develop their ability to remedy them, and nurture autonomously the possibility of understanding from them.

Disciplinary learning emphasizes the active role of the primary school student. While up to the second class the attention is still heteroregulated (it depends above all on the teacher's ability to activate it) and memorization is more influenced by the emotional and social value, from the third class onward, learning becomes a conscious, intentional, organized and controlled process, therefore influenced by the decisions and initiative of the student himself (Zimmerman, 1990).

Already from the first Primary School classes, it needs to stimulate and value self-regulated learning in students, based on their ability to "build knowledge and skills, and acquire behaviors that can be transferred to different learning contexts: from school to work or leisure time" (Boekaerts, 1999); therefore, a type of learning that is not based on knowledge transfer.

The responsibility for achieving self-regulated learning can be attributed to the interaction of multiple factors of personal (related to the students' individuality), environmental and behavioral nature, (Bandura, 1977; 1997) and to the teacher's skills.

Self-regulated learning can develop if the student has a repertoire of strategies useful to deal with the different tasks assigned, including self-observation, monitoring one's own activity, self-evaluation of one's own performance and self-reaction to the results of one's own actions. (Zimmerman, Pons, 1986). In particular, the request for support (by peers, teachers, adults) is one among the most basic strategies, but it is also particularly significant as it makes explicit the awareness of one's own difficulties, of what one knows or doesn't know and of the one with which he/she has more difficulty or fear of measuring up. This underlies fears that concern both the judgments and prejudices of others, and one's own inner judgment in not feeling good enough.

The setting of the school environment should be structured in such a way as to facilitate learning by reflecting the principle of an enriched environment, intended as an environment full of facilitating stimuli and proving welcoming and appropriate to all users, including students with Special Educational Needs.

The Enriched Environment is an environment that, by offering motor, perceptual, cognitive and social stimuli, modifies the brain both structurally and functionally. The general definition of this term is "a combination of inanimate and social stimulation" (De Vita, Rosa, 2018).

Therefore, the brains of people living in richer and more stimulating environments show an increase in the number of synapses and glial cells, due to synaptic plasticity and neurogenesis (Rosenzwerg, Bennet, 1996; Van Praag, Kempermann, Gage, 2000).

Much of our interactions with the environment and our own emotional behaviors depend on our ability to perceive and understand the emotions of others". (Rizzolatti, Sinigaglia, 2006).

We become empathetic. The empathetic sense of a mother, the prototype of sociality (Bowlby, 1999), is indispensable in this activation process (Bellingreri, 2005) in order for empathy to develop and express itself.

Empathy "is indispensable for preserving mankind, which, otherwise, would have been led to self-destruction" (Rogers, 2007).

Recovering the sense of identity, the ability to empathize, to be protagonists of one's own life while respecting the value and dignity of others, become primary objectives and key elements on which to focus an educational intervention.

Learning success/failure cannot disregard the intervention of the teacher; it depends not only on his/her empathetic skills, on listening to the personal and educational needs of his/her students and implementing effective educational strategies accordingly, but also on his/her ability to hinder or facilitate the process aimed at developing the student's intrinsic motivation to learn. It is necessary for the teacher to be aware of the influence of the emotional and social dimensions of his/her intervention in the students' development and growth process; in addition, he/she needs to master not only the many methodologies and tools available, but above all the dynamics of the students' way of acting.

Emotions belong to the personal patrimony of the human being and are a great resource in the field of training because, willingly or unwillingly, in a spontaneous or automatic way, they play an important role in learning and contribute to make it more or less deep, conscious, and meaningful.

If emotions are employed in the field of training, then the latter becomes more effective, more involving, closer to the person, deeper and more significant, because emotions have the peculiarity of stimulating intentionality, participation and desire to learn, and can determine the will of acquiring new knowledge. Emotions become a potential resource when the teacher understands, recognizes, expresses, manages and uses them in his/her way of being, acting, welcoming, engaging in his/her work, and relating to others. It is thanks to this emotional baggage that he/she will be able to stimulate them in the students, by means of the educational relationship and the didactic interventions.
• This aspect requires training professionals to become aware of them, in order to be able to launch an adequate preparation path that allows them to learn about and manage their emotions, along with the activities and tools that can be used in the training context. (Carnation, 2016)
• Emotions can help students focus attention, fix contents and experiences, and facilitate internalization and memorization, thus they underpin intelligence and generate real, natural, and long-lasting learning. Therefore, the teachers' role and preparation becomes the driving force for developing the ability to implement - willingly or not - an emotional didactics based also on their training background. All this through an in-depth study of themes and didactic-operational methodologies based on experience, methods and techniques that can be used in the classroom, with interventions useful to stimulate and increase students' willingness to learn, in addition to facilitating teamwork, creating a more confidential and collaborative atmosphere, and encouraging involvement and desire for active, transparent and cooperative participation.
• Contributing to people's complete formation and well-being means encouraging autonomy, by motivating and enhancing the talents that all students enjoy (whether with or without Special Educational Needs), thus stimulating everyone's full satisfaction and self-fulfillment.
• The principles of positive psychology are focused on some fundamental concepts: talents are personal predispositions that, if specifically employed, favor high level performances; strengths are developed talents that result in excellent performances in the field in which they are applied.
• "Teachers' confidence in each person's skills, and in all human resources, is a powerful driver of strength and psychological capital" (Grassi, 2008; Winseman, Clifton, 2004; O’Hanlon, Clifton, 2004), in a human and humanization perspective.

**Biodanza SRT in self-regulated learning processes, metacognition, identity training and inclusion**

Biodanza SRT (Rolando Toro system) originated in 1960 thanks to Rolando Toro Araneda's personal experience (Chilean psychologist and anthropologist), and is considered a body-mediated Social Pedagogy inspired by the foundations of Biology, Anthropology, Psychology, Sociology, Neurophysiology and the most recent research works in Neuroscience and Human Sciences.

Biodanza SRT is a System for personal growth and human evolution that awakens attention to oneself, the others and the context, sensitivity and empathy, so as to progressively increase self-confidence, self-esteem, self-efficacy, listening skills and strengthening of identity by improving the well-being and quality of personal and social life (Rosa, De Vita, 2018).

The term Biodanza comes from the Greek prefix Bios, which means "Life", and from the word Dance, of French origins, which means "integrated emotional movement"; so its translation is: "The Dance of Life".

In Biodanza, realizing one's own dance means integrating one's own feelings with one's own actions, creating a communion between feelings and emotions that animate us and the visible expression of our way to move into the world. (Rose, Madonna, 2019a).

The Biodanza SRT Methodology proposes experiences lived in the "group" (as a strengthener of identity and sense of belonging to a common feeling) and is strictly based on a Gestalt, using specific exercises generated by the interaction between: music (universal language), movement (natural expression of the human being), emotion (existential sensibility) and encounter (as a reinforcement of identity and belonging) to induce vivencia (the moment lived with intensity in the "hic et nunc ").

While an emotion is a response to external stimuli and disappears when they no longer exist, Vivencia is "an experience lived with great intensity by an individual in the here-now covering the emotional, kinaesthetic, and organic functions" (Toro Araneda, 2000).

Through Integrating Vivencias we stimulate the healthy part of all human beings, regardless of the possible presence of diversability, discomfort or special need, enabling a continuous connection with oneself and with others by stimulating self-reflection and self-evaluation on the way we act in the world (self-learning).

This occurs in order to strengthen self-esteem, foster adequate personal and relational skills, bring out and express one's own potentialities by enhancing talents and improving life quality, and making it more complete and satisfying.

"Self-esteem is the confidence in our right to be happy, feeling worthy, deserving, entitled to assert our needs and wants and to enjoy the fruits of our efforts". (Branden, 2008). "To have great self-esteem is to feel confident with being appropriate to life" (Branden, 2008).

Human beings need to live and perceive the experience of their own value and to accept themselves, so that they can feel their body as a total source of pleasure generating the intense feeling of being alive. (Taurus 1991).

The path towards an Integrated Identity implies the full expression of our basic potentialities that, in Biodanza, are expressed in five lines of vivencia:
- Vitality, linked to the first experiences of movement, the feeling of energy and joy of living;
- Sexuality, linked to the care and the type of physical contact received;
- Creativity, the degree of freedom in exploring the world; it expresses itself in the ability to explore one's own life;
- Affectivity, related to the sense of security and nurture conveyed by those who looked after us;
- Transcendence, which depends on having felt sensations of existential harmony and joyful participation of the surrounding environment.

Everyone, throughout his/her life, may or may not develop these fundamental functions, by sometimes strengthening some of them to the detriment of others.

Through the Innovative Methodological Training of the Biodanza SRT System these lines of vivencia are all stimulated, harmonized and integrated with each other, in order to come into contact with one's own identity and to encourage the learning of those skills and competences that are fundamental for life (Life Skills).

Biodanza is an activity that encourages people to participate actively in the group, by increasing the sense of belonging to the world, inducing people to live their lives fully and with creative courage, "weaving functional intrapersonal and interpersonal relationships, favoring the indispensable prerequisites for personal and collective growth and development" (Rogers, 1980), showing the desire for innovation and remodeling to a new order.

The Biodanza group constitutes, in all respects, a group intersubjective space that induces new forms of communication and emotional bond, and plays a key role: "it is a matrix of rebirth in which each participant finds the affective and permissive control of his own change" (Toro Araneda, 2012).

In order to restore a real existential health, it is necessary to find a way to trigger a real process of reconnection with one's own emotional core as quickly as possible. Affective intelligence is the ability to solve life problems from life itself. (Toro, 2012; 2017).

Within the Biodanza group there is a continuous exchange of experiences, an emotional resonance and a mutual recognition, allowing the participants to be reflected in each other, to recognize themselves, to discover one another reciprocally thanks to the creation of a real empathetic network (Toro Acuna, Demelas, 2013).

Acquiring empathetic skills makes it easier for the individual-child to cope with the various situations that will arise throughout their lives. (Goleman, 1995). Through a person-centered approach in a facilitating and non-judgmental atmosphere (by respecting and paying attention to oneself and to the other) it stimulates an optimistic attitude (positive vision), self-efficacy (confidence in one's own abilities), self-esteem, empathy, emotional management, empowerment (development of potentialities), interpersonal skills and social skills. Introducing Biodanza SRT into emotional literacy programs contributes to the learning of essential interpersonal skills, since the development of emotional intelligence within subjects in developmental age fosters the possibility of achieving the objectives, in educational or socio-educational intervention, of dealing with conflicts within the peer group, and of developing mutual understanding and solidarity (Melchiori, Barzotti, 2018).

"Biodanza is a system of acceleration of the integration/inclusion processes: it is existential, psychological, neurological, immunological and endocrinological (PNED). Its practice is carefully based on the creation of an environment enriched with selected stimuli. Through music and exercises, the proposal can generate dynamic experiences that stimulate neuronal plasticity. Experiences stimulate the creation of new synaptic networks awakening a series of possibilities that previously had no form of expression. It is a highly integrative process that brings healing and preventive effects" (Last update to the definition of Biodanza made by Rolando Toro Araneda, 2009).

According to this definition, it must be agreed that Biodanza itself is an enriched environment: a space in which we welcome and are welcomed by the other, we stimulate and are stimulated by the other, and where human relationships are at the basis.

By excluding disability and enhancing skills, the Biodanza SRT methodology is focused on the person, on the development of his/her potentialities and the enhancement of his/her talents, contributing predominantly to the development of Human Capital. By acquiring a "personal power", people gain greater self-confidence, develop their abilities and talents to the fullest, becoming the protagonist of their own growth and life, thus realizing their own "actualizing trend" (Rogers, 1969).

Biodanza SRT is also a valid inclusive didactic strategy, because "it is based on the conviction that the active participation of every single member of the group represents an enrichment for all the others" (Ghedin, 2016), thus promoting acceptance, welcoming and inclusion of diversity in its human sense.

Scientific evidence has demonstrated the effectiveness of Biodanza SRT, applied in school contexts, on regulating one’s own behavior, managing stress, increasing autonomy and sense of effectiveness, improving mood and mental health, and enriching emotional intelligence (Abad, Castillo, Orizia, 2014; Castañeda, 2004, 2009; Fernández,
2012; Mueller, 2012; Villegas, Stuck, 1999); it also shows positive effects on the decrease of cortisol levels with consequent reduction in stress, useful to implement emotional recognition, concentration and 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). Significant variations have been found on alexithymia (emotional illiteracy) too, and on the person’s overall well-being (Giannelli, Giannino, Mingarelli, 2015). Further research works on the impact of Biodanza during school age have highlighted the ability of school-age children to clearly improve emotional intelligence and self-esteem, with a fair impact on the improvement of motor aspects such as aerobic power and agility (López, Pifarre-Sà, Fernández-Ozcorta, Sáenz-López Buñuel, 2018). It proves significant also in relation to cognitive-behavioral, emotional, motivational and relational aspects and on socially accepted behaviors in minors under detention regime (Rosa, Madonna, 2019b; Rosa, 2019).

Finally, in a further study carried out in the field of Mental Health, participants were found to have a greater ability to "perceive one's own individuality and, at the same time, the similarity with others, while not perceiving oneself as 'different' but as part of a group" (Ghedin, 2016), rediscovering one's uniqueness, experiencing the joy of existing, the ability to get excited and to enter into a relationship with the other, with whom, while dancing, an emotional and empathetic bond is established. (Ghedin, 2016).

A fundamental characteristic of the Biodanza SRT system is represented by its Universality, as it is an educational method with a heterogeneous and transversal application suitable for men and women of all ages in educational, sports, mental health, socio-health, rehabilitation, business, criminal and many other contexts.

**Conclusion**

From a formative point of view, the Italian school system must take advantage of an education mediated by corporeity and movement, in order to achieve a correct psychomotor development of the students, but in the perspective of their evolutionary growth geared to autonomy and self-empowerment, contributing to the development of forms of identity that do not follow pre-established models and relate to an authentic self-expression. This new vision of the teaching-learning approach is based on "motor activities and on corporeity, which, starting from what a person is able to give or do, stimulate the self-esteem and consideration of one's own existence" (Gianfragna, 2005).

Motor activity is essential for the child's body, mental and emotional development. Nevertheless, it is also the key element on which to act in order to improve the performance of those who are experiencing difficulties at school (Barbieri, 2015). Starting from this dimension, in an Inclusive Third Millennium School, the inclusion of Biodanza in the Primary School project of education to emotions represents the ideal space within which to experience oneself, and through which to develop and consolidate one's own identity, sense of self-efficacy (Bandura, 1996/2000), self-esteem, personal autonomy and empathetic, affective and cognitive skills, useful to foster ecological relationships, cooperation and cooperation with others, and socio-relational skills in all people with or without Special Educational Needs.

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