

# The Relationship between Dance and Multiple Intelligences of Institutionalised Children: A Theoretical Framework for Applied Research

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**Abstract:** *The paper aims to make a systematic analysis of the literature that addresses the relationship between dance and multiple intelligences in order to identify the main theoretical aspects that underpin the design and implementation of educational interventions for institutionalised children to learn dance. This category of children is a permanent concern for specialists in the field of education sciences who are interested in finding the most effective methods and means of training that can support the educational and institutional efforts for the social integration of these children. Following the review of the literature provided by the main databases, a correspondence was made between the types of intelligence described by Gardner (1983) and the effects of dance on these intelligence modalities. The bibliographic analysis had as organisational criteria: multiple intelligences, dance, children at risk and the effects of dance on their growth and development. The correlative analysis has revealed a number of dance characteristics susceptible to have a positive influence on different types of intelligence and can serve as benchmarks in the interdisciplinary design of dance activities in general and dancesport in particular. As a result, the theoretical model presented in this paper represents a methodological benchmark for the implementation of enhanced programmes for the personal development of institutionalised children and the creation of additional conditions for their school and social integration.*

**Keywords:** *multiple intelligences, dance, institutionalised children.*

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## Introduction

The study of multiple intelligences is a highly topical issue addressed by specialists in various educational fields, including physical education and sport. According to the theory proposed by Howard Gardner and presented in the book *Frames of Mind: The Theory of Multiple Intelligences* (1983), intelligence is a set of abilities differently developed in each person and necessary for coping with social and environmental changes. Gardner makes reference to the following intelligence modalities: verbal-linguistic (speech skills, meaning and rhyme of words), logical-mathematical (abstract, conceptual thinking, identification of logical, numerical models), visual-spatial (spatial judgement, visualisation with the mind's eye), musical-rhythmic (ability to produce and have sensitivity to rhythm, pitch and timbre), bodily-kinaesthetic (ability to control body movements and handle objects skilfully), social/interpersonal (ability to detect and properly respond to others' moods, motivations and desires) and emotional/intrapersonal (ability to be self-aware of one's values, beliefs and thoughts). Over time, Gardner proposed two other intelligence modalities, namely naturalistic intelligence (ability to recognise elements in the natural world: flora, fauna, etc.) and existential intelligence (ability to ask deep questions about human existence).

This theory has opened new horizons in the field of educational psychology, which was provided with innovative perspectives of intervention. The starting idea was that each individual has multi-factorially represented abilities that develop over time and increase personal efficiency, thus making it easier to learn certain things compared to others. Although possessing all types of intelligence, an individual is essentially characterised by one or some of them that will influence their personal learning style.

The theory of multiple intelligences was soon adopted by teachers specialising in various fields of science, but also by education systems interested in increasing their own efficiency. Such an approach was clear evidence of surpassing the stage where only verbal and rational intelligences were considered as essential to characterise an individual (Nacakci, 2009). Applying this theory to the field of education actually means identifying the main ways in which a certain content can become comprehensible for an individual due to a facilitated learning process.

In the study conducted in 2014, Morgan presents the advantages enjoyed by a student who benefits from a differentiated teaching system

based on the learner's types of intelligence: optimal learning time, stability of learning outcomes and ability to put into practice the acquired knowledge.

These modalities delimit distinct methods and means of training that are able to meet the learner's need for knowledge. In this way, valuable, useful and highly accessible learning experiences are provided. On the other hand, the subject's motivation for learning, curiosity and pleasure of learning with ease are also stimulated.

For each child, these multiple intelligences are expressed in the form of a preferential learning style. Many learning styles can be found within one classroom or group of children. If a certain content is not accessible to students because it addresses a less represented intelligence, the teacher will have the role of conveying new information by applying the most developed intelligence so that children understand the new subject. For example, Brualdi (1996) shows in a study how a child with highly-developed musical intelligence can learn history by producing various sounds associated with war. This explains the quick way in which children can learn different contents if they are presented in different forms. For instance, mathematics can be learned through drawing or even dance.

The study by Nacakci (2009) highlights the development of multiple intelligences through musical education that, according to available data, gives more pleasure of learning compared to classical lessons. Participants become more interested in the explanations provided by teachers, more receptive and understand faster the information transmitted through practical methods. When the development of a child includes the main types of intelligence, the level of education increases.

Beyond educational interventions in the classroom, there are student-centred curricula worldwide that use these learning styles. Obviously, it is extremely difficult to approach all types of intelligence during a single activity, but it is important for the teacher to address as many students as possible (Dastgoshadeh & Jalilzadeh, 2011).

### ***Purpose of the paper***

Starting from the theory of multiple intelligences, the paper aims to make a systematic analysis of the literature that addresses the relationship between dance and multiple intelligences in order to identify the main theoretical aspects that underpin the design and implementation of educational interventions for institutionalised children to learn dance.

## **Topic addressed**

### ***Growth and development difficulties of institutionalised children***

A specialised study entitled “The Bucharest Early Intervention Project (BEIP)” and started in 2000 by three American teachers (Nathan Fox, Charles Nelson and Charles Zeanah) on a sample made up of 136 institutionalised Romanian children indicated that they had problems with discernment, impulse control and memory. The same study also involved 72 community children from organised families whose intelligence quotient was higher compared to institutionalised children. The care and attention that children receive at home decisively influence their mental and emotional development.

The situation of institutionalised children in Romania can be approached from many points of view because there are numerous aspects that need to be improved in the educational and social protection systems designed for them. With the increasing number of abandoned children, the percentage of those placed in foster families or adopted has also increased. Compared to children in orphanages, they receive love, understanding and security, factors that contribute to harmonious development and significant cognitive and emotional progress (Lăcătușu, 2004).

One of the main problems is the social integration of children that grow up in foster homes. Lack of parental care affects the child intellectually but also in emotional and behavioural terms, which is why they show hyperactivity and attention disorders, depression and anxiety, aggression, behavioural disorders, impulsivity, instability or emotional detachment, non-conformism, disregard for common sense rules, introversion, maladaptive traits, especially the social ones (Popa, Sava, & David, 2018). Shyness, lack of trust in people around them and lack of self-confidence prevent these children from communicating and interacting with other members of society. The feeling of being marginalised, not being of interest to anyone, being deprived of affection and love develops in the abandoned child a state of depression, of existential emptiness and therefore they will always have doubts about the sincerity of people who try to give them love (Roco, 2004).

Following a study conducted by Tutunaru (2018), it has been found that the social disadvantage of institutionalised children has a negative impact on their school success, but the school also influences their results, the relationship between the socioeconomic aspect and school performance having a boomerang effect. The development and training of children may depend on the financial possibilities provided to them. Abandoned young

people are prone to school failure because of their limited possibilities, and this makes it difficult for them to integrate into society.

In the absence of family support, children living in foster homes try to self-manage existential problems and face mistrust and insecurity about their own strengths and the decisions made, having a lower level of mental resilience compared to the non-institutionalised child (Muris & Maas, 2004). A study by Vygotsky (cited by Lantieri, 2017) mentions that social interaction is the way in which mental processes develop in children aged between 8 and 11 years, meaning that they live in a world based on self-awareness in relation with others, and benefiting from calming strategies from an adult they trust can provide them with an effective tool for managing difficult feelings.

A study conducted in Satu Mare by Cuc and Macarie (2012) on a target group of 20 children aged 7 years (1st grade) from foster homes aimed at verifying to what extent the emotional intelligence of subjects could influence their social life. The conclusion reached by the two specialists is that only 4 of the 20 children had good emotional intelligence. An authoritarian behaviour of caregivers generates a negative state of mistrust and fear of expression. The absence of a parent who cares about the child's harmonious growth and mental health leads to frustration and fear, which makes it difficult to integrate them into society, not only among children of their age but also as adults. When treated with affection and motivated to progress, children will be more relaxed, spontaneous and original, and therefore exploiting their creative potential will be easy to achieve. Anxious, nervous or depressive people do not receive information effectively, show attention disorders and choose self-isolation (Lozovina et al., 2012).

In a study by Floarea (2016), it is emphasised that children need an environment that ensures their harmonious psychological and intellectual development. Emotional stability, educational guidance, participation in collective and non-discriminatory activities together with other children and the guarantee that an adult is always there as a support are important aspects for child development and integration into society. The absence of a family environment generates behavioural disorders leading to antisocial manifestations that are differently expressed, depending on each child's personality, either through aggression, violence and agitation, or, on the contrary, through introversion. There are many children who suffer in silence, isolate themselves and prefer not to talk about their feelings with those around them. In order to overcome these traumas, they need support from the people around them and a balanced environment that gives them affection and emotional stability.

Children in foster homes are much more efficient in their activities, even during a game, when they spend their time with a caregiver, a foster carer, and those who have passed more time in an orphanage have poorer results than those who are adopted or live in foster families (Daunhauer et al., 2007).

Goleman (2007) claims that children who are raised with love and affection from their parents are more optimistic, relaxed and emotionally stable. They control their feelings and empathise with those around them, being at an advantage in any area of life. Well-developed emotional abilities give individuals a chance to be satisfied with their personal lives, but also efficiency, self-control, clear thinking and concentration.

### ***The role of dance in child development***

Dance is an activity performed to music, with profound effects of relaxation and emotional release. Studies demonstrate that performing physical exercise to music improves the individual's mental and affective states (Predoiu, 2016).

Brain activity is extremely important for children, and dance has a positive impact on their mental, emotional and social development from the first years of life, the forms of communication in that period relying on expression through gestures and movements (Faber, 2017).

Specialists in the field of dance analysed its contribution to regulating emotional states (as a basis for interpersonal relationships) with regard to music and movement and have concluded that people who are not able to convey or receive emotions are shunned by other people. Dance develops the performer's capacity for nonverbal expression through the body. The means of expression that dance activates are encoded through nonverbal communication and are represented by gestures, posture, eye contact, distance between partners, facial expression.

The emotional charge released through music and dance generates mental relaxation, self-control and self-confidence, which turns over time into long-term happiness and a feeling of wellbeing (Schneider, 2018).

Music releases endorphins and generates physiological, psychosomatic and mental effects, thus influencing the dynamics of emotional life, stimulating attention, memory and imagination. There are people who think in rhyme, are sensitive to the pitch and timbre of a sound, create or reproduce music using their voice or instruments and establish a connection between a melody and emotion, being endowed with musical intelligence that can be enhanced through dancesport.

As a sport discipline, dance combines musicality with the coordination of body segments, developing another type of aesthetic, artistic intelligence characterised by plastic and expressive execution, aesthetic refinement of interpretation and choreographic construction (Macovei, 2007). All these confer this sport complexity and difficulty, but also the ability to generate positive cognitive and socio-emotional effects.

On the other hand, studies show that young people who perform activities that stimulate creative ability, such as music, dance, singing, drama, painting, etc., have better mental health and resistance to external stimuli of any kind. These positive effects are highlighted by self-confidence, self-esteem, ability to interact with the social environment, sense of belonging to a group, as well as skills related to the self-control of emotions and thoughts, arts offering the possibility of mental recovery especially during adolescence, when young people's moods are unstable and positive thinking is important for maintaining mental wellbeing and making the educational process more efficient (Zarobe & Bungay, 2017).

Compared to people who perform other physical and leisure activities, dancers and musicians have a greater ability to distinguish sounds, understand information, anticipate and imitate the next movements of people around them or other living organisms, have a sense of rhythm and movement synchronisation with music, spatiotemporal orientation and body control (Karpati et al., 2016).

A study conducted on a sample made up of 136 children (Preda & Iacob, 2014) has shown that dancesport improves memory, verbal comprehension and social intelligence, but there are differences between boys and girls, test results favouring the male gender. At the same time, the level of spatial orientation ability increases, dance being performed in all directions. Once the movements are memorised, the vision of the workspace is much clearer. Dance is known to integrate sensory information received through the auditory, visual, somatic and vestibular channels, and to involve motor control over the entire body.

### ***Dance – an educational means for children at risk***

Dancesport is an activity that meets the primary needs of an individual, such as affiliation to a group, socialisation, verbal and nonverbal communication with group members, freedom of expression, stimulation of creativity and originality, improvement of physical and emotional states.

Korenjak (2018) highlights in a study the revolutionary work of Goergen, who, around 1820, introduced music and dance as a form of patient therapy in a psychiatry clinic in Vienna, thus making known the

concept of “active form of music”. When people study what they like and receive careful education, they regularly carry out their preferred activities and listen to their favourite music, which results in a lower risk of developing mental illness or emotional disorders.

Music therapy and dance therapy are a reform of life, a refreshment of the body. The study by Raglio, Traficante and Oasi (2011), which included 7 children with various disabilities (autism, retardation, etc.) and social integration difficulties, who communicated with therapists through music, has demonstrated that nonverbal and sound communication can be improved; in the studied children, sound-music communication was improved by 86%, and nonverbal communication, by 43%.

Dance helps to both maintain the optimal functioning of the cardiovascular system and, because mental health is dependent on physical condition, heal children suffering from cancer due to mental relaxation and emotional discharge during rhythmic exercise (Kourkouta et al., 2014).

Another study (Habron, 2014) conducted on 112 children with back and neck problems, who had anxiety and stress, also demonstrated the efficiency of dancesport in optimising mental health. Half of the children attending dance classes every week improved their health status, but also their emotional state, thus overcoming depression. Practicing dancesport improves self-esteem and therefore participants become more confident, oxygenates the brain, which increases concentration, memory and attention abilities, is a means of play and socialisation being associated with entertainment and pleasure, stimulates the motor system and balance, and releases endorphins, subjects feeling good after training. Music therapy is used to alleviate mental disorders such as behavioural, comprehension and learning problems, trauma, brain damage, mental illness, dementia, but also physical disabilities, being an ally for maintaining or reaching a feeling of wellbeing and health, including from the emotional perspective.

A study by Capello (2008) describes a project carried out in several countries of the world, which involved a dance programme aimed at improving the physical and mental condition of children in difficulty. The methods used were adapted to the needs of the group from each participating country. This programme was a form of therapy for children with special needs living in foster homes, orphans after the loss of both parents, victims of violence, with behavioural disorders, from disadvantaged backgrounds, etc. It has been proven that dance can be a form of treating mental and emotional problems, and that general health can be enhanced. The quality of life has improved in children practicing any form of dance in



their free time, because this sport is thought to educate self-control of the body and mind.

Deprived of affection and parental attention, institutionalised children often face difficulties in controlling their emotions and negative states. Although one of the causes of a poor emotional state is genetic in nature, it is also influenced by the environment and experiences lived throughout life; therefore, emotional intelligence can be learned, educated (Schutte, 2014). Emotions can be conveyed from one person to another, which is why the social environment is very important in the development of an individual.

It is scientifically proven that the feeling of being marginalised, not being of interest to anyone, being deprived of affection and love develops in the abandoned child a state of depression, of existential emptiness (Roco, 2004). Haboush et al. (2006) argue that dance combats depression. After the implementation of a dancesport programme for 8 weeks, with 1 lesson of 45 minutes per week, it has been concluded that this sport can be considered a therapy for mentally unstable people due to its beneficial effects on psychological and emotional levels.

### ***The relationship between dance and multiple intelligences***

Dancesport is a means by which multiple intelligences, especially the musical-rhythmic one, can be enhanced (Becea, 2008). Moreover, dancesport, also known as “ballroom dance”, develops emotional and social intelligences, and thus contributes to balancing the body’s energies through movements accompanied by music and developing interpersonal relationships.

Social competence can be divided into two areas, empathy and social skills (Praditsang, Hanafi, & Walters, 2015). Once the feelings and needs of others have been perceived and understood, people manifest themselves differently in society, being influenced by the level of their emotional intelligence. Thus, they can show interest or disinterest in another person, can influence people, communicate what they feel or think, manage a conflict, change situations or collaborate with a person or group.

Skourdi and Rahimi (2010) believe that emotional intelligence is related to linguistic intelligence and can be stimulated through dance due to the technique of performing the steps and the countless ways of expressing them in choreographies specific to each dance style. Verbal expression is more difficult for an introverted person than for a vocal one, whose manifestations are sincere and natural towards others. In the case of negative experiences and extreme stress, the amygdala neurons work very intensely

and interrupt the transmission of information to other areas of the brain, such as the hippocampus that is related to the thalamus, grey matter and the centre of spoken language. A trauma can lead to the inability of producing verbal expression, and if it is narrated, time jumps and gaps may occur (Ruppert, 2012).

Bodily-kinaesthetic intelligence, namely the ability to use a certain part of the body in different ways and to control its movements so that it expresses as many states and feelings as possible (Gardner, 1983), is highlighted in the study conducted by Root-Bernstein and Root-Bernstein (2003). These authors promote the idea that expressing one's emotions through dance is achieved by means of choreography that, metaphorically speaking, can be considered the vocabulary of an individual. Just as, when wanting to convey information, it is not enough to know how to speak but it is necessary to have something to say, the message of the artistic act reflects emotion and creativity.

Dance, through the development of bodily-kinaesthetic intelligence, also stimulates cognitive aspects related to the perception of the environment and people around, being a sport based on the attitude of listening to all surrounding stimuli that, according to personal perceptions, are expressed physically and emotionally to the rhythm of music. A person able to physically express what they feel, with an attraction to art, has a considerable cultural background and sensitivity to minute details that are not noticed by rigid people, without aesthetic sense.

Naturalistic intelligence refers to everything that is in a pure, natural state in the environment and develops directly proportional to the artistic vision and expression, an aspect that dance achieves through any style. Women show greater inclination towards artistic activities, which stimulate creativity, having high levels of visual-spatial and rhythmic intelligences (Ekici, 2011). At the same time, stereotypes have been created in society, according to which girls should practice artistic sports based on music and body movements, such as gymnastics, ballet or dance, while boys are guided towards football, boxing or team sports, which involve contact with the opponent (Jakubowska & Byczkowska-Owczarek, 2018).

We believe that, in the case of institutionalised children who do not benefit from parental guidance, a physical activity based on dancesport can represent an efficient and accessible content with multiple instructive and educational valences.

In a study by Murcia et al. (2010), dance also provides cognitive benefits because it stimulates logical thinking and memory by the fact that the different movements (specific motor gestures) learned are combined to

form choreographies. The logical sequence of dance steps accompanied by technical and artistic elements that must be taken into account during the execution represent a means of developing logical-mathematical intelligence.

As regards visual-spatial intelligence, the performer acquires the ability to clearly visualise the examples provided by the instructor and mentally represent them in relation to the workspace and their own movement capabilities.

In the study conducted in 2017 by the German Centre of Neurodegenerative Diseases over an 18-month period, it has been demonstrated that dance increases the volume of the hippocampus, which is associated with learning, memory and balance, and represents a more efficient and faster method of neural regeneration as compared to other physical activities.

Combining the idea that institutionalisation affects children's memory, intelligence and social skills (Nelson, Fox, & Zeanah, 2014) with information about the benefits of dance extracted from the previously mentioned studies, it follows that this type of activity can be a means of integrating institutionalised children into society by encouraging them to learn behaviours that ensure optimal integration into school and social environments as a result of using multiple intelligences.

Table 1 reveals the aspects by which dancesport influences each type of intelligence and also shows possible research directions for these relationships.

**Table 1.** Relationships between dancesport and multiple intelligences

Type of intelligence	Elements of dancesport that contribute to the development of multiple intelligences	General hypotheses regarding the target group of institutionalised children
EMOTIONAL INTELLIGENCE		
Intrapersonal area	<ul style="list-style-type: none"> <li>* Learning dance steps specific to different dance styles through which the performer conveys certain states</li> <li>* Performing individual dance steps without physical support from another person</li> <li>* Maintaining static positions specific to standard dance styles while listening to music for mental relaxation</li> </ul>	Different dance styles differently influence intra- and interpersonal skills.

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Interpersonal area	<ul style="list-style-type: none"> <li>* Musical interpretation through movements and expression in front of the group</li> <li>* Communication between partners in order to correct mistakes and learn dance steps faster</li> </ul>	Dance contributes to developing the performer's mental flexibility and ability to cope with the demands of social and professional/educational life.
Stress management area	<ul style="list-style-type: none"> <li>* Optimisation of mental state and attainment of suitable emotional tone</li> <li>* Performing exercises for relaxation, meditation and elimination of negative states</li> </ul>	Dance develops stress management skills. Dancesport contributes to balancing the demands of school and leisure activities.
General condition area	<ul style="list-style-type: none"> <li>* Variety of dance styles that provide a feeling of wellbeing, happiness</li> <li>* Dancer-teacher communication that occurs in optimistic and supportive terms</li> </ul>	Dancesport contributes to increasing the quality of life for institutionalised children.
Adaptability area	<ul style="list-style-type: none"> <li>* Teamwork and collaboration between partners</li> <li>* Learning new movements</li> </ul>	Dancesport develops the social interaction skills of institutionalised children and increases their ability to interact in different school and social environments.
VERBAL-LINGUISTIC INTELLIGENCE	<ul style="list-style-type: none"> <li>* Collaboration and verbal and nonverbal communication</li> <li>* Dancer-teacher communication</li> </ul>	Dancesport facilitates the development of passive and active vocabulary, thus contributing to the school success of performers. Communication between partners throughout the training process and the practice of dance contribute to optimising groupwork skills.
LOGICAL-MATHEMATICAL INTELLIGENCE	<ul style="list-style-type: none"> <li>* Dance steps are performed in a logical sequence (crossed, added, collected, hop steps), in all directions of movement (forwards, backwards, to the left-right side, diagonally)</li> <li>* Alternating high and low positions, steps performed with the heel raised and on the heel, with the knees stretched or bent</li> <li>* Choreographies specific to dance styles where the steps are performed according to a count specific to each style, to the rhythm of music</li> </ul>	Dance stimulates the development of thought processes, imagination and memory. Dance develops the ability to focus. Memorising the steps of various dance styles and the geometric movement paths contributes to the formation of calculation skills.

<p>MUSICAL- RHYTHMIC INTELLIGENCE</p>	<ul style="list-style-type: none"> <li>* Musical rhythm and association with its specific count</li> <li>* Musical interpretation through body movements</li> <li>* Noticing the secondary structure through dance-step specific accents</li> <li>* Step synchronisation with the musical rhythm</li> </ul>	<p>Dance-specific motor structures contribute to the development of temporal orientation and organisation, with a direct effect on time budget management. The variety and complexity of musical rhythms in dancesport develop the musical sense.</p>
<p>VISUAL-SPATIAL INTELLIGENCE</p>	<ul style="list-style-type: none"> <li>* Development of spatial orientation</li> <li>* Travelling in all directions by adjusting the stride length to the size of the dancefloor</li> <li>* Careful visualisation of available space and anticipation of other people's movements so as to avoid unintentional collision</li> <li>* Travelling in the dancing direction (counter-clockwise), in the form of an imaginary circle</li> </ul>	<p>Dancesport has positive effects on the spatial orientation and organisation involved in the success of school activities. Dancesport-specific travel in different directions contributes to developing a sense of space and autonomous movement in various environments.</p>
<p>BODILY- KINAESTHETIC INTELLIGENCE</p>	<ul style="list-style-type: none"> <li>* Expressing feelings through body movements</li> <li>* Rhythmic interpretation through limb coordination</li> <li>* Development of optimal muscle tone</li> <li>* Harmonious physical development of the whole body</li> <li>* Controlling all body segments and performing large body movements</li> <li>* Balance control while performing technical elements</li> </ul>	<p>Dance contributes to forming and maintaining the correct body posture. Rhythmic interpretation stimulates the development of nonverbal communication skills. Body expressiveness developed through dance facilitates interpersonal communication.</p>
<p>AESTHETIC (ARTISTIC) INTELLIGENCE</p>	<ul style="list-style-type: none"> <li>* Educating the aesthetics of movement by learning the basic movements of classical ballet, which aim at the positions of arms, legs and torso.</li> <li>* Expressing the specific character of a dance style can have theatrical valences in order to induce a feeling of wellbeing for both performers and spectators.</li> <li>* Correction of physical impairments and improvement of posture by maintaining a straight, high position while dancing</li> </ul>	<p>Body control developed through dance contributes to improving the posture and aesthetic sense of institutionalised children.</p>

	* Educating body control so as to develop the dancer's aesthetic sense and inclination towards beauty	
SOCIAL INTELLIGENCE	<ul style="list-style-type: none"> <li>* Physical activity performed to music involves moving to several points of the workspace, which makes it possible to interact with several people.</li> <li>* Creation of collective, team choreographies, which stimulates interpersonal collaboration and cooperation.</li> <li>* Dancesport promotes fair play and stimulates the acceptance of people around and their support by performing individual dances in the middle of the group, being encouraged by colleagues.</li> <li>* Synchronisation of pair movements or group choreographies</li> </ul>	Pair or group dance training develops the social intelligence of institutionalised children, which is expressed through social ability, as well as the ability to interact and empathise. Practicing dances from different cultures facilitates the inclusion of people from minority groups, disadvantaged categories or at risk.
NATURALISTIC INTELLIGENCE	<ul style="list-style-type: none"> <li>* Interpretation of sounds from nature (animals or natural phenomena) through dance movements</li> <li>* Associating the movements of living bodies in nature with body elements performed to music</li> </ul>	Dance contributes to harmonising the relationships of institutionalised children with the natural environment.

*Source:* original contribution to the research topic

## Conclusion

The theory of multiple intelligences (Gardner, 1983) has opened new perspectives in the field of education sciences in general and particularly in the field of sport and physical education science by highlighting new directions to approach the teaching/learning process. Applying this theory in the specific context of practicing physical exercise opens new horizons on the way in which teachers design and carry out their activities with different categories of subjects.

The complexity of this sport generates positive effects on the entire body and develops all forms of intelligence through the integrated manner in which it specifically acts on them. The outcomes of participating in dance-specific activities create the prerequisites for obtaining physical, motor, cognitive and socio-emotional benefits.

Although the literature presents the beneficial effects of dance on performers, its use as a means of training in the activity carried out with

institutionalised children is reduced. However, the results of some studies encourage the use of dance as a therapeutic means, which creates favourable conditions for using it for this category of children who often show growth, developmental, behavioural and/or language disorders. Consequently, dance activities in general and dancesport in particular represent the framework for exploiting highly valuable educational resources that specialists in our field are invited to explore in future studies.

Addressing multiple intelligences through dancesport in the case of institutionalised children is a novelty.

Whether we refer to Latin dances, which express joy, exuberance but also deep feelings through fast, energetic or slow rhythms, or we turn our attention to standard dances where elegance, purity and innocence are prevailing, all styles aim at the expression of feelings and the execution of movements by highlighting the emotional substrate that everyone hides inside their own person. The specific relationships that are established between the content of dance and the multiple influences exerted on verbal-linguistic, logical-mathematical, visual-spatial, bodily-kinaesthetic, social, aesthetic, musical-rhythmic and naturalistic intelligences have been insufficiently studied, especially as regards institutionalised children.

This creates perspectives for dance research and development as an educational method to be used in the training process designed for performers from disadvantaged groups.

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