

## **THE CENTRALITY OF THE SCHOOL PRACTICES AND DIDACTICS OF MOTOR ACTIVITY**

## **LA CENTRALITÀ DELLA SCUOLA PRATICHE E DIDATTICA DELL'ATTIVITÀ MOTORIA**

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### **Abstract**

The importance of movement education and its centrality in the school, in a continuous training process with the aim of educating, instructing and training adolescents together with the family. In our society, the role of the school is fundamental as a training agency that supports, also through motor activity, the structuring of the self and of learning processes. Body language and movement are a resource for educational and inclusive courses, in favor of building the discovery and knowledge of the individual and for a sustainable future and equality in diversity.

### **Key words**

Embodied Cognition, Motor Activities, Sports, Teaching, Neuroscience  
Embodied Cognition, Attività Motoria, Sport, Insegnamento, Neuroscienze

## **Introduction**

This study wants to make the reader reflect on the centrality of the school in relation to the importance of education and lifelong learning. Along with the family, the educational institution is organized according to rules, with the aim of educating, instructing and training students from the age of three to about eighteen. It is a continuous formative process that develops in the sensitive stages of growth. The role of the school in our society is crucial, and we have witnessed this especially in this last year during which we have been hit by a violent pandemic event, forcing us to avoid social contacts; consequently, even the school has been conditioned to the point of interrupting classroom training. However, we did not even think for a moment of interrupting the relationship between teachers and students, using what is now widely known as distance learning, so as not to interrupt the <<connection>> between people. This is a fundamental aspect of the project “La Scuola al Centro” (The Centrality of the School) in which, through the movement, the body is considered a resource for the structuring of the self and of learning processes; all this while also providing the possibility of building, discovering and learning about the individual, as well as of building a more sustainable future based on equality in diversity, through the design of educational and inclusive paths. In fact, the school is that institution having education as its main purpose, and is structured in such a way that adults and young people can be together in the same environment with the aim of learning (Bertagna, 2004). In the educational environment, the relationship between people plays a fundamental role in achieving educational goals, where a series of stimuli are offered to prompt certain responses, thus the educational actions of the teacher are combined with those of his or her students. The motor and sports education at school is part of the special didactics as it acts in a practical way, affecting and involving not only the mind and attention of the student, but also his/her body (Iaschi, 1995). Movements enable the realization of a wide range of gestures ranging from facial expressions to sports performance; thanks to it the student can learn about his/her body and how to move it in the space, thus being able to communicate and relate to others (Italian Ministry of Education, 2007). Therefore, in this way, the school becomes the center of society since it values the students, becoming the bearer of the principles of a sports culture where respect for oneself and one’s opponent, loyalty, sense of belonging and responsibility, and anger management, prevail over any form of violence (Italian Ministry of Education, 2007). Hence the importance of structuring projects that focus on both body language and on social relationships, with the particularity of preventing both school dropout and bullying/violence episodes among students. Learning to manage one’s own body in space through motor language and the respect the rules in sports, as well as to relate to others even under conditions of physical stress, contribute to the educational and training process in such a critical age as adolescence. The school must aim to become central in the life of each student; it must be perceived as a place where, besides education in the strict sense of the word, social life can find its place thanks to playful and motor activities, to sports and other artistic disciplines. A school which aims to be at the center of the life of all students.

### **1. Education and Movement: their central role at school**

For the adolescent students of 2020, the freedom of discovery, independence, sociality, individual constructive and creative formation of their own personality is still in a state of “stand-by” between sudden prohibitions and obligations, turning everyday school life into a screen. The reality of the adolescents (Lerner, Steinberg, 2004) is made up of multiple changes affecting the person as a whole, calling into question his/her physical and psychic identity. In fact, in this phase, the maturation process is conflicting as it takes place during growth, restructuring one’s identity (Steinberg, Morris, 2001) in a phase that approximately goes from 13 to 19 years. Therefore, the current but “New Normal” has become what everybody calls distance learning, with the only didactics of lectures and better grades prevailing (Becker et al, 2020). The whole school life - made up of complicity, companionship, recreation in the hallways, in which re-

laxing chats, jokes and laughter are predominant - has been disrupted. However, all that has been lost is extremely necessary and essential, useful to build the entire “Formative Process”, which must necessarily involve others in terms of knowing how to confront each other, accepting things and each other by sharing the intentions and judgment of others, and by convincing oneself of one’s own fragility; all this to the benefit of one’s own individuality in explosive growth (Grotevant, 1998). It is time to think about starting over with appropriate languages; the school can and must be the main protagonist supporting new generations, as it has to ensure signs, codes, symbols and communicative languages integrated into reality, for a conscious development of the ego. For this reason, through the experience of movement, the motor language can offer meanings in favor of the harmonious development of mind and body, up to the introduction to sports practices. Educating the body through movement is therefore fundamental for acquiring perception of oneself and of the relationship with the world around us. In this paper, we present a project already applied in 2016 in a school context, the “G. Giorgi” High School of Milan, within the framework of a National Operational Program (PON 2014-2020), in collaboration with the Sports Medicine Center of Voghera (Pavia - Italy). Through movement, the body becomes the main resource for the structuring of the self and of learning processes, providing also the possibility of building, discovering and understanding the individual, and of creating a sustainable future based on equity in diversity, through the design of educational and inclusive paths. The subject of the contribution was: “Projects for social inclusion and fight against disadvantage, and for ensuring the opening of schools after regular school hours, especially in risky and peripheral areas” (Italian Ministry of Education, 2016). The initiative was proposed to students of all classes for the prevention of early educational failure and of school dropout. This was done through a functional assessment and through physical activity, aimed at acquiring tools - such as the training methodology and nutrition science - enabling each participant to improve his/her awareness of psychophysical well-being, performance and conscious and appropriate behaviors to adopt, in order to improve and maintain physical and mental aptitudes/potential over time. In particular, this intervention to support students, also characterized by particular fragility (including people with disabilities), was also aimed at valuing the school as an active community, open to the territory and able to develop and increase interaction with families and the local community, also by opening the schools in the afternoon. Motor education is then a necessary strategy for developing learning processes.

## **2. Movement as the key element in the development of the formative process of the adolescent**

The formative process of human beings underlies on both the biological and the cultural dimensions of the body. The former comprises the binding elements of the experience, while the latter contains the tools for interpreting and organizing reality (Bruner, 1997). Everything will be based on the set of genetic dispositions and internal evolutionary-developmental processes, and on the other, on the exclusive construction based on the strictly individual interpretation of contexts and ways of thinking. The two dimensions will allow to carry out the training and learning actions (Lo Presti, 2005). This will be possible thanks to the exchange mechanisms of the environment, but in all cases, the full development of the cognitive and intellectual apparatus of human abilities is closely interconnected to motor skills, to the point of determining the cultural and social aspect. Therefore, the knowledge development process will be transactional, within a reality in which the final output will be the relationship between subject and environment by means of the body. For this reason, the movement encompasses the whole truth made not only by the objective and subjective reality, the external world and the body, but more comprehensively, by the relationships, emotions, symbols and meanings, all necessarily useful to build a knowledge of the perception of reality, of the real world. “What we experience and go through, what we know and are aware of is necessarily developed by our construction elements, and is explained only by the type of our construction” (Von Glasersfeld, 1988). The reality encompasses individuals whose relationships and interactions actively contribute to shape and

organize the experience and the world itself in which they live, thanks to strategies and rules. To conclude, this dynamic creates the mediations between the body and external reality, by means of relationships, the social and cultural context, the exchange of codes, languages and behaviors, which are the foundation of society and of both individual and collective reality. In fact, Piaget's studies (1936) related to the cognitive development of children, as well as those carried out by Neisser (1976), Bruner (1980), and Stern (1988), already demonstrate the active ability of human beings, starting from their first years of life, to acquire useful and necessary information to build orientation models by means of their bodies and movements. This representation of reality within the mind occurs internally, thanks to the continuous interaction with the physical environment, by means of actions and interactions with it. The object becomes a perceived-object, and thanks to the movement it is then possible to interpret and include it within the system of environment representation and interpretation. The body will be the key element to build the patterns of reality through information. Thanks to actions and exploration and interactions, the movement will create visions for the development of reality itself, and for developing learning skills. Therefore, the body in movement will make it possible to build and organize the experience: everything will be "habitable" and recognizable only thanks to the exploration and construction actions of our body (Neisser, 1976). This psycho-pedagogical observation axis will raise the movement to the universal and necessary objective condition of structuring knowledge, replacing what traditional theory invokes, i.e., a body that moves in a space only thanks to its natural bio-mechanical predisposition, with respect to which only the technical educational path is useful. The latter system is thus deeply incorrect and limits the complex nature of motor and knowledge construction processes; to move will mainly mean to think and feel, indispensable prerequisites that will allow to imagine and see any kind of action, a motor body intertwined with knowledge and connected with the various contexts and meanings of reality (Contini, Fabri, Manuzzi, 2006). For these reasons, the whole learning and knowledge development process is closely interconnected with the neural morphology, with its synapses and with the whole central nervous system. The evolution, the growth of the brain (first six years of life), is directly proportional to the flow of experiences through the corporeal-cognitive and rational-emotional interchange, against the background of the social context and cultural system of reference. In this way, (Contini, 1992): the sensitive and emotional experience of corporeality guides cognitive processes as much as social and relational processes do. Likewise, perceived reality will be made permanent through perception, attention and motor memory. All this thanks to the individual experience that each subject makes up to the complex structuring of stable representative patterns of reality, once again thanks to the harmonious activity of mind and body. In the light of the above, the organism must be considered as a body-in-action. Thanks to the movement, the body will contribute to the formation of the hippocampus, which is the area responsible for procedural memory, a fundamental component defined by Damasio as corporeal, biological and material situatedness (Damasio 2000). This demonstrates the fact that we ourselves are our body, characterized by a materiality, a biological specificity, made up of and bounded by a fundamental condition of constraint to which all our possibilities are linked. To conclude, the body represents the primary environment through which the human being interacts with others, is in relationship with others, and is ultimately self-situated in his or her own individual corporeal biology. The construction of knowledge and the interaction-action processes lie in the body. Through the environment, movement and exploration, it will be possible to select all information from outside through the movement itself. Ultimately, it is a circular process of reconfiguration and adaptation, whereby motor practice is the possible condition through which to respond to the different conditions that may arise (Nicoletti, Borghi, 2007) to reconstruct space-time maps (Neisser, 1976), continuously rewrite the movement patterns, and exchange cognitive information between internal and external reality by means of it (de Mennato, 2007). In this way, knowledge will represent a structure with the anticipation patterns embedded in its contents, which, when applied, will improve the individual's ability to explore and thus improve the cognitive recognition and anticipation structures (Neisser, 1976). This pragmatic aspect of

corporeity, which already present in systematic social relationships and supported by the mutual symbiosis of shared expectations systems (Habermas, 1997), will guide each individual in the search for and acquisition of all socio-cognitive, grammatical, syntactic and phonological skills, since the latter are the basis for the realization of shared patterns of expectation and action on which the meanings of things, the use of language, the management of codes or signs and their relationships will be structured.

### **3. The Project “La Scuola al Centro” (The Centrality of the School)**

The idea is inspired by the Anglo-Saxon model, in which, while school activities are over, school buildings remain open to provide services and human resources to students. This took shape with the project launched by the Italian Ministry of Education (MIUR) in 2016 (*Projects for social inclusion and fight against disadvantage, and for ensuring the opening of schools after regular school hours, especially in risky and peripheral areas*), within the framework of a National Operational Program for the “G. Giorgi” High School of Milan, and in collaboration with the Sports Medicine Center of Voghera (Pavia - Italy).

The aim of this project was to improve the state of psycho-physical well-being of students, mainly through an initial screening performed on each of them making it possible to improve immediately their awareness of their physical fitness. In fact, the objective was to make a first evaluation of each participant starting from their anthropometric data, hydration level, strength indexes, and eating habits. The second theoretical-practical part, on the other hand, allowed to improve the degree of knowledge about specific subjects, such as: functional anatomy of movement, food science, training methodology, sports physiology and functional evaluation of movement; this was made for educational purposes, in order to improve the educational proposal of the school and to arouse interest in students that could orient them towards future studies and avoid school drop-outs (Decree of the Italian Minister of Education, University and Research dated April 27, 2016, no. 273, entitled “Specific action for the realization of interventions aimed at preventing school drop-out in the peripheral areas of metropolitan cities, characterized by a greater risk of avoiding compulsory schooling”). The interactive lessons are structured with an innovative didactics approach, considering the classrooms as real laboratories, the experimentation of which is a fundamental part of the training process. The training methodology to be chosen, characterized by a “non-formal” approach and by the learning-by-doing, can be useful to acquire a concrete attitude addressed to the functional research of solutions, helping to develop creativity, professional flexibility and to recognize the most frequent mistakes in the processes of analyzing solutions.

### **Conclusions**

The most outstanding outcome of this project, carried out within the framework of the National Program “Per la Scuola” (“For school - Skills and environments for learning 2014-2020”), was the formation of adolescents who are more aware and up-to-date about their needs, healthy food habits and sports activities. The thematic area of the project pursued the values of equity, cohesion and active citizenship, thus promoting the reduction of territorial disparities and aiming at strengthening the school institution. The intervention was aimed also at supporting student, by intervening purposefully on groups of students with difficulties and specific needs, and therefore exposed to greater risk of drop-out; students got involved through the promotion of effective innovative experiences, which turned the school into a non-formal and non-frontal educational context, where experiences, experimentation and sharing of educational content were chosen and turned into lessons, thus rising from theoretical to operational skills. In conclusion, both the impact of digital systems in favor of remote learning, especially during the COVID-19 pandemic, and the positive influence of the National Operational Programs related to the field of didactics, can be a categorical imperative for schools and educational commu-

nities as they provide the necessary support for adolescents, besides being of pedagogical and educational support for students with mental health and/or learning disabilities (Becker SP et al, 2020). Moreover, the idea that families cooperating as partners with educational agencies and schools emerges strongly. In fact, thanks to experiences of dialogue and promotion through the parental involvement, reaching educational success of students can be a valuable support for parents themselves and for their increasingly difficult and challenging educational task (Corradini, 2007). The dialogue and the synergistic responsibility between school institutions and parents support the educational development path, favoring the development of the cultural level and particularly supporting the educational task in the human development of children and adolescents, so as to achieve their more mature autonomy level. Another important concluding remark is the relationships between school and family: the more mature and fluid they are, the more they make the relationships advantageous and useful for the school itself, in the development of its educational and formative objectives. This perspective develops a reflection on the way the school relates to parents, the latter being partners capable of making a significant contribution to the formative process of the younger generations. The parent, considered as a partner, will develop a positive and proactive self-perception, taking on the conscious responsibility for the development of the school's educational plan, of which he or she is an active and collaborating player. Therefore, in this exclusive role, parents will no longer be passive players, but they themselves will be the main actors in the institutional school-family relationship. They will not feel themselves as mere "users" of their children's educational and training process, but as active participants in that process. In this perspective, the school is seen as an always active lighthouse at the center of the life of the community, of the families and in particular of the young people.

## References

- Becker SP et al, Remote Learning During COVID-19: *Examining School Practices, Service Continuation, and Difficulties for Adolescents With and Without Attention-Deficit/Hyperactivity Disorder*, Journal of Adolescent Health Volume 67, Issue 6, Pages 769-777, (December 2020);
- Bertagna, G, *Scuola in movimento. La pedagogia e la didattica delle scienze motorie e sportive tra riforma della scuola e dell'università*. Milan: Franco Angeli Editor, (2004);
- Bruner J, *Under five in Britain*. London: Grant McIntyre Ltd, (1980);
- Bruner J, Sherwood V, *Pensiero, linguaggio ed interazione nell'infanzia*. In V. Ugazio, *La costruzione della conoscenza. L'approccio europeo alla cognizione del sociale*. Milan: Franco Angeli Editor, (1997);
- Contini MG, *Per una pedagogia delle emozioni*. Florence: La nuova Italia Editor, (1992);
- Contini MG, Fabbri M, Manuzzi P, *Non di solo cervello. Educare alle connessioni corpo mente significati contesti*. Milan: Raffaello Cortina Editor, (2006);
- Corradini L, *Educazione alla salute nella scuola, un iceberg in cerca di un approdo istituzionale: dai progetti «Giovani» e «Genitori» ai forum nazionali*, Italian Journal of Family Education, n. 1 (2007);
- Damasio AR, *Emozione e coscienza*. Milan: Adelphi Editor, (2000);
- De Mennato P, *Per una cultura educativa del corpo. Una epistemologia costruttivista delle scienze motorie*, Lecce: Pensa Multimedia Editor, (2007);
- Grotevant, HD, *Adolescent development in family contexts*. in W. Damon & N. Eisenberg (Ed.), *Handbook of child psychology: Social, emotional, and personality development* (p. 1097–1149). John Wiley & Sons, Inc, (1998);
- Habermas J, *Teoria dell'agire comunicativo*. Vol. I. Bologna: il Mulino Editor, (1997);
- Iaschi, G, *Le ragioni del corpo, dall'educazione fisica all'educazione motoria*, Palermo: Palumbo Editor, (1995)
- Lerner RM, Steinberg L, *The scientific study of adolescent development*, Handbook of adoles-

- cent psychology - Wiley Online Library, (2004);
- Lo Presti F, *Il senso del sé. Percorsi autoriflessivi nella formazione*. Lecce: Pensa Multimedia, (2005);
- Ministero della Pubblica Istruzione, *Indicazioni per il curricolo. Per la scuola dell'infanzia e per il primo ciclo d'istruzione*. Rome: Tecnodid Editor, (2007);
- ITALIAN MINISTRY OF EDUCATION UNIVERSITY AND RESEARCH. *AOODGEFID. OFFICIAL RECORD (U)*. 0010862.16-09-2016;
- Neisser U, *Conoscenza e realtà*. Bologna: il Mulino Editor, (1976);
- Nicoletti R, Borghi AM, *Il controllo motorio*. Bologna: il Mulino Editor, (2007);
- Piaget J, *La construction du réel chez l'enfant*, Neuchâtel: Delachaux et Niestlé, (1936);
- National Operational Program of the Italian Ministry Of Education University And Research, *Seven-year European Structural Funds , 2014-2020*, [https://www.istruzione.it/pon/avviso\\_inclusione.html](https://www.istruzione.it/pon/avviso_inclusione.html);
- Steinberg L, Morris AS, *ADOLESCENT DEVELOPMENT*, *Annu. Rev. Psychol.* 2001. 52:83–110;
- Stern, DN, *Le interazioni madre-bambino. Nello sviluppo e nella clinica*. Milan: Raffaello Cortina Editor, (1998);
- Von Glasersfeld E, *Introduzione al costruttivismo radicale*. In Watzlavick, P., *La realtà inventata. Contributi al costruttivismo*. Milan: Feltrinelli Editor, (1988).