

Development of the person-child: Awareness of oneself and of others through motor activity

American Journal of Social Sciences and Humanities

Vol. 9, No. 1, 1-20, 2024

e-ISSN: 2520-5382



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ABSTRACT

This article, structured through in-depth and rigorous bibliographical research, focuses on the importance of movement and the body in nursery school as privileged elements for interacting with the world by starting one's own path of acquiring a personality style. In fact, the school, together with the family and the social sector, has the great responsibility of instructing and educating with all the knowledge for a complete education, taking care of and welcoming subjects of developmental age. One of its main purposes is to initiate the full development of the personality for complete maturation by providing knowledge that uses all languages (verbal and non-verbal) with concrete and tangible skills for the future man citizen. We focus on how, from early childhood, the body connects the self with things, with the environment, and with others, enhancing everyone's experience from an early age, from cognitive, sensorial, emotional points of view, social, and relational through the body, placing it as the protagonist and creating contexts in which to build meanings and diversified paths. The emphasis is on carrying out multiple and different recreational-motor activities in a positive and stimulating environment, leaving the child time to experiment and internalize at his own pace, allowing him to build his self-image (perception, knowledge, conscience), gradually exploring and learning through it.

Keywords: 3-6 years, Bibliographic research, Collaboration, Physical activity, Self-awareness, Social sciences.

DOI: 10.55284/ajssh.v9i1.1023

Citation | Valentini, M., Montesi, M. , & Federici, A. (2024). Development of the person-child: Awareness of oneself and of others through motor activity. *American Journal of Social Sciences and Humanities*, 9(1), 1-20.

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Funding: This study received no specific financial support.

Institutional Review Board Statement: Not applicable.

Transparency: The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

Competing Interests: The authors declare that they have no competing interests.

Authors' Contributions: All authors contributed equally to the conception and design of the study. All authors have read and agreed to the published version of the manuscript.

History: Received: 22 November 2023/ Revised: 10 January 2024/ Accepted: 24 January 2024/ Published: 6 February 2024

Publisher: Online Science Publishing

Highlights of this paper

- A rigorous systematic review was carried out, presenting protocols chosen after careful reading of the full text with relative critical analysis.
- The theme examines the relationship between motor activity, self-awareness, social skills, and collaboration at the age of 3-6 years.
- Play, especially collaborative play, is of vital importance for the formation of personality and plays an essential role in the development of intelligence.

1. INTRODUCTION

In this last period, there has been a great interest in the "self", which is identified with that particular intermediate category between the Ego and the Object. The self, in fact, represents the meeting point between the individual and the context in which he is inserted and presupposes the idea that one must necessarily first come to know oneself, in order to then be able to come to know the other: from 'I to us. Educating oneself, therefore, also means looking inside oneself and questioning oneself, leading to the formation of those introspective skills aimed at increasing awareness of one's own person, one's strengths, and one's fragilities. To do this it is necessary to "objectify" oneself and distance oneself from oneself to find the motivation to act and learn. In this sense, motor sciences require recognition of the educational value of doing and acting. In particular, action appears to be the most important factor that shapes cognitive systems in relation to the ability to unite one's identity with the environment, and others and with the emotional dimension that characterizes the entire bodily-motor experience. This impulse must be perfected through teaching/learning paths that place the bodily-kinesthetic dimension at the centre, paying particular attention to: the thoughts that lead to action, since «the thought in any case comes out of a directly experienced situation. No one can think simply in general, nor can ideas arise from nothing [...] it is the nature of the situation [...] actually experienced that gives rise to inquiry and evokes reflection" (Dewey, 1910) and to motivate children towards sensory education since the senses, understood as means for exploring the environment, act as the key that opens the door to knowledge (Montessori, 1952). In this regard, motor activities and various movement games become indispensable and useful means for the education of children because they provide them with important experiences for learning rules and values aimed at developing the important branch of socialization. Enhancing corporeity through ludic-motor activities, especially in the 3-6 age group, can help bring out "individual specificity" and richness as Persons, characterized by the link between body and movement, entity biological and social dimension. Considering the body dimension «no longer as an object of the world, but as a means of our communication with it» Merleau Ponty (2003) is associated with the image of a personal body, alive, intrinsic with feelings and states of mind invisible, but which, if manifested to others through body language, have a preponderant importance compared to the verbal content itself as «... there are many things that cannot be expressed in words [...] | The correct use of non-verbal communication is an essential part of the social capacity and of specific social competences» Argyle (1988) which allow us to recognize the person's unconscious intentions and motivations.

2. BODY AND MOTOR ACTIVITY FOR AWARENESS OF THE SELF AND OF OTHERS

Considering the body as the center of teaching and putting it in relation to one's own and other's emotions leads to a multi-sensory, vast, broad involvement. From this point of view, the ludic-motor activities, structured above all with a laboratory character, become exceptional content in which human and social relationships are preferred. The formative potential of corporeity is inspired by various theories based on multisensory approaches that enhance the importance of experience representing a key in the school education system. Very often at school, the simple transmission of knowledge is used, which gives life to a didactic aim, not so much at education, but at the crystallization of the teaching that the child must keep. Teaching, on the other hand, should translate into a practice

that aims to immerse oneself in the potential of the Person, intrinsic to relationships, communications, and emotions. This must have its own educational intentionality, which is reflected in a method of mediation between knowledge, know-how, know-how, and know-how [Sibilio \(2002\)](#) which generates training courses that trigger curiosity in the child, the astonishment of discovery and of knowledge, use of imagination, creativity, and ingenuity to apply one's abilities, skills and competences in many different ways ([MIUR, 2012](#)). To do this, it is necessary for the teacher to possess transversal methodological-didactic skills to shape his educational practice by adapting it to the different ways that the child has to access knowledge, without claiming to find the same type of mind in individuals, but working to ensure that everyone reaches their maximum intellectual potential ([Gardner, 1995](#)). Even after the dark period we have gone through, marked by the global pandemic, motor activity can become a positive impulse for all ages, reclaiming the great educational and cultural value of movement. It is necessary to help the student find a balance between the spirit of free and adventurous discovery of the environment and respect for the environment itself, as well as the protection of individual and collective health. It becomes of great importance to explore space and time through the body, action, and movement, sensorially immersing ourselves in the reality that surrounds us and transforming information into learning and education into personal growth. A sort of dialectical relationship is thus created between the individual and the environment, respectful of oneself and others, which triggers in the subject a "sense of adventure, of discovery and of being the creator of that experience" ([Federici, 2021](#)). It is important that the environment is well organized and welcoming to guarantee maximum safety and inclusion, with a view to activities aimed at developing everyone's full potential. Motivating them to a sensorial education of the surrounding reality is essential since the senses, understood as a means to explore the environment, act as a key that opens the door to knowledge ([Montessori, 1952](#)). However, the teacher must always exercise maximum safety and attention through effective planning and adequate support to pupils by promoting self-control, rational and responsible behavior, self-confidence, and emotional control. Numerous studies highlight the concept of the Person: an individual capable of mastering his own abilities, from communicative to personal (awareness, self-esteem...) and social ones (cooperation, empathy...), who is placed at the center of the educational and learning process. The educational action must be centered on the learner, on his uniqueness and individuality, creating educational projects that allow full self-construction. In doing so, he gradually increases his self-awareness through the "rules of knowing how to do", triggered by the observation process he himself implements. Furthermore, as [Nicolodi \(2008\)](#) argues, children use their body and body language as their first communication tool, which allows them to enter, at first, in relation to the world around them and with others. Indeed, according to the same author, corporality is closely related to the emotional state of the child and becomes, par excellence, the «criterion of the truth of what is said» ([Nicolodi, 2008](#)). Nowadays, the child is increasingly catapulted into a reality almost completely devoid of creativity and light-heartedness. This aspect leads him to be realistic and to grow up earlier than necessary. The early realism that derives from it is usually accompanied by solitary, repetitive games that isolate him and nullify his development of relational skills. For the little ones who are entering life in today's society, made up of difficulties, contradictions and complexities, it is increasingly difficult to be able to build a strong identity. The game, therefore, turns out to be an essential means because it has its own intrinsic motivation: you play for the simple pleasure of doing it. Furthermore, in the game: the process is more important than the result; there are rules to be respected (not rigid or fixed, but flexible, modifiable according to the needs of the players and the game; there is active involvement of the children ([Baumgartner, 2002](#)). Montessori herself bases her pedagogical thinking on experience play as a means of discovering the world. Play, also understood as motor activity, develops autonomy and outlines potential. In fact, only "through certain movements and sensations, the child finds the key to open up, explore and learn about the world" ([Gambula, 2017](#)). This reflects the concept of "intentionality of the body" mentioned by Galimberti. Intentionality "of our acting

in the world and on it [...] a world that never ceases to *design*" (Gambula, 2017). Therefore, to face the risks of a society increasingly based on individualism, the main objective of the school is to focus on the child's personality, protecting and encouraging him in his full and harmonious development and knowledge of the world. The game turns out to be the privileged tool to allow the child to orient himself and establish himself in an increasingly complex. Also according to Article 31 of the International Convention on the Rights of the Child and Adolescent, ratified by the General Assembly of the United Nations in 1989, children are granted the right to rest, free time, games, and appropriate recreational activities at their age. Therefore, we can say that today, as never before, it is necessary to pay great attention to the child and the playful-motor activity most suited to him, in order to favor a global construction of his personality and identity. In addition to this, the kindergarten has the task of promoting an educational proposal that connects the body with the relational and social aspects, considering movement as an inevitable element in the development of the student, making him the protagonist as a unique, unrepeatable individual made up of mind and body. It is precisely in this age group, defined as "the golden age of motor skills", that we must not "risk wasting" the infinite opportunities that motor activity gives to their development. Sociability has the purpose of relating, in an appropriate manner, the individual with the context and the different situations that arise in it, highlighting the relationship between the subject, the environment, and the others. As Durkheim argued, man is the union between "individual being" and "social being" composed of «a system of ideas, feelings, and habits, which express us [...] the different group or groups of which we belong» (Durkheim, 2009). Already from infancy, the gradual consolidation of social development then flows into the "involvement of the person in an activity that provides interaction with others" Levasseur, Richard, Gauvin, and Raymond (2010) defined by Levasseur as "participation social", an aspect of extreme importance for the life and well-being of the person and which underlines those reciprocal bonds that are created between individuals with the same social potential, developing in their collaboration, competition, respect for the rules and cooperation (Schaffer, 1998). In order to make up for individualism and the constant need to assert one's superiority over the others who emerge in today's society, the school system is called to leverage, above all, group activities and collaborative games in which «[...] nobody wins, nobody loses and nobody is left out. The participants of the group [...] do not play against each other, but challenge themselves [...]» Loos (2011) in order to achieve a common goal. The positive results that this type of playful activity provides are many. First of all, in collaborative games, everyone is called to depend on the group, and only by working together are we able to achieve the goal. This, therefore, determines a notable positive interdependence: a pillar of collaborative games that is «born when a person perceives that he is linked to others for the pursuit of his own goal when the group is thought of as a team in which the destiny and success of each member are interconnected with the fate and success of others» (Gambula, 2017). Thus, the establishment of a cooperative and advantageous climate within the group is facilitated, where each individual is aware of being able to make a difference and having to contribute (Dyson, 2001). Johnson argues that group members must be aware that union and collaboration involve personal success, which also depends on the success of the entire group: if one fails, all fail. Positive interdependence is one by which this is achieved (Johnson, Johnson, & Holubec, 2015). In this perspective, he comes to feel responsible both for his own task and for that of the group. All this must be accompanied by mutual trust and effective communication, promoting face-to-face interaction, an essential prerogative in order to achieve the final goal (Dyson, 2001). A group is made up of several minds who, if they cooperate together, have the opportunity to look at the problem from many different points of view and, at the same time, to enrich their own baggage of information offered by an individual who expresses an idea different from his own. It can happen if, at the base, there is a climate of inclusion, acceptance, and serenity, in which one is able to externalize one's identity. Through collaborative play you learn to value each other's thoughts and actions, listening and understanding them. Thus he abandons self-centeredness, sharing pains, joys, and life

experiences with others (Comoglio & Cardoso, 1996). The moment it is decided to propose collaborative games, the teacher becomes a real mediator (or "facilitator"): he has the task of helping to complete the activity in an optimal way. The teacher, through the awareness of his own value and the strong retirement to belief in the benefits that collaborative games bring, will be able to implement a functional and coherent educational program with his choices. Nicolodi, in reference to the figure of the teacher, also speaks of sensitivity and his ability to be a security for every child. It is important that you also master your own personal training in the more emotional aspects that this profession requires, such as advising, encouraging, protecting, directing, and observing. What the teacher must do, therefore, is to provide a solid foundation of security and autonomy, trying to influence the child to have an exploration and research approach, which also leads him to make mistakes and make mistakes. In this sense, the teacher is not always called to intervene to correct or suggest what the pupil is expected to do. It is important that the little ones experience the mistake positively. Furthermore, from the point of view of the teacher, the error can be an important indicator to be able to re-evaluate and re-design the proposed activities. In general, implementing effective play-motor activities is a very complex task. This is why it is important that the teacher possesses flexibility and respect, planning and programming skills, and trust, a formative belief in non-trivialized ludic-motor activities. Even while having fun, you can learn (Nesti, 2012) without forgetting that «the function of play is to allow the individual to realize his ego, to unfold his personality» (Claparede, 1952; Nesti, 2012).

3. METHODOLOGY

In the systematic review, the protocols chosen after an accurate full-text reading will be presented and the relative critical analysis will be proposed. In order to rigorously select articles consistent with the research hypotheses presented to be included in the work, it was necessary to undertake a scrupulous procedure, divided into several phases. The inclusion and exclusion criteria were decided, and, subsequently, the following steps to be followed were outlined: Choice and use of keywords to be used when searching the databases; Record and merge all results; Elimination of duplicates; Full-text search of the protocols included in the systematic review work; Reading of the chosen studies and creation of a table containing all the most significant elements of each protocol. Browsing and searching for the various articles was done in EBSCO. The different databases that have been consulted are SPORTDiscus, APA PsycArticles, Semantic Scholar, Google Scholar, BASE, CORE, Springer Open, and ERIC. Articles published in the period between 2000 and 2022 were included. The combination of the following keywords was used, as well as fundamental parameters on which all the research is based: Physical activity (motor activity), Motor activity, 3-6 years old (age 3-6 years), Preschool children, Well-being, Collaboration, Sociality, Social behaviors. To ensure that all articles could be considered reliable sources, a filter was selected to view only research reviewed by experts. As you searched EBSCO, multiple articles were found. For this reason, we proceeded with an analysis of the abstracts of the protocols that answered the questions outlined. However, while searching EBSCO, many articles were found to be inconsistent with the key reference topic. As a result, the following exclusion criteria have been outlined:

- Consistency with the research questions: all those protocols that did not satisfy the continuity criteria and that were not consistent with the initial idea of the research were not selected.
- Year of publication: All protocols prior to the year 2000 have been excluded.
- Language: Studies in languages other than Italian, English, and Spanish were excluded.
- Lack of full text: Only protocols where full text was available were selected.
- The protocols that responded coherently to the central issues were then examined.

4. RESULTS

The selected articles were included focusing on the topic examined: the relationship between motor activity, self-awareness, social skills, and collaboration in the age of 3-6 years, at the year of publication from 2000 to 2022. Most of the studies analyzed are written in English, Spanish, and Italian. An initial search in the database revealed 40 articles, which became 35 after removing duplicates. Some of these protocols were excluded through a screening by reading the abstracts, as they did not meet the required criteria. Sixteen full-text articles covering motor activity, self-awareness, social skills, and collaboration among 3-6-year-old children were then assessed for eligibility and analyzed in more detail [Figure 1](#).

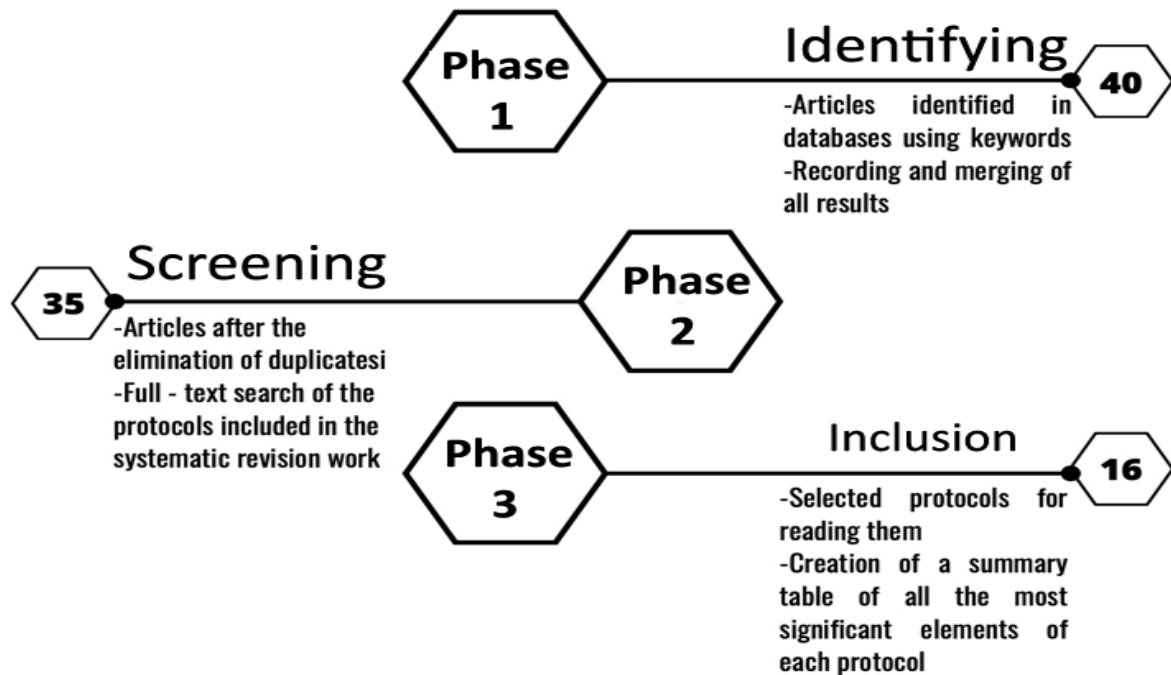


Figure 1. Diagram with a sequence of phases followed during the research.

Below, in a summary [Table 1](#), we find the 16 selected final protocols placed in increasing order with respect to the year of publication.

Table 1. Articles included in the review are in chronological order.

Title	Authors year nation	Number of children age of children	Topic E setting	Duration of experiment	Journal	Search engine	Results
Cooperative games and children's positive behaviors	Finlinson, Berghout Austin, and Pfister (2000) Utah, USA	39 children (20 boys, 19 girls) 4 years and 6 months, 5 years and 5 months	Observation of children's behavior during cooperative and competitive play in a kindergarten in Utah. It investigates the correlation between cooperative play and positive behaviours manifested by children.	7 weeks	Early Child Development and Care	BASE	It is shown that children exhibit more negative behaviors during competitive play. During collaborative gaming, however, positive attitudes are more frequent.
Cooperative learning in an elementary physical education program	Dyson (2001) University of new Hampshire, USA	47 children (24 children involved in the project Volleyball; 23 children involved in the project Basket) 5-6 years old	Proposal for a cooperative physical activity program in a kindergarten in montreal. Prejudices, impressions, and objectives of children and teachers are analyzed.	4 weeks	Journal of Teaching in Physical Education	Sport-Discus	Results show increased ownership by participants creating a positive atmosphere within the group, encouraging mutual support.
Interaction between physical environment, social environment, and child characteristics in determining physical activity at child care	Gubbels et al. (2011) Maastricht, Paesi Bassi	175 children 2-3 years old	Analyze the relationship between motor activity and the environment, understood as a welcoming space in 9 dutch kindergartens.	2 months	Health Psychology	APA Psycarticles	The opportunity to exercise in a pleasant environment is positively related to the desire for more physical activity by children. The intensity of this physical activity is also influenced by the size of the group and the attitude of the teachers.

Title	Authors year nation	Number of children age of children	Topic E setting	Duration of experiment	Journal	Search engine	Results
Motor activity as a drug for Personality development in childhood: Review of the literature	Valentini, Palmieri, and Lucertini (2015) Italy	All children participating in the studies included in the systematic review should be included Kazakistan: 102 Canada: 80 Poland: 286 Taipei: 28 Denmark: >600 Canada: 267 Brazil: 50 Italy: 70 Portugal: 285 Spain: 24 Germany: 709 UK: >3000 USA, Scotland, Finland, Australia, Chile, Estonia, Belgium: 10316 Israel: 88 Nigeria: >1000 2-12 years old	The education to do is exalted, that is to say, everything that affects the motility and corporeality of the child in many European kindergartens. It highlights how movement education, if implemented since preschool age, can positively affect all facets of the personality of each individual, and how body and movement are useful and necessary to structure cognitive skills, emotional, social, and moral.	Varies depending on the study	RELAdeI (Latin American Journal of Early Childhood Education)	Revistas.USC	It emerges that today's civilization is characterized by a lack of movement and play among children, creating a global deficit in personality. It emerged that motor and cognitive development must develop in the period of early childhood since it is characterized by more dynamism and neuronal plasticity. All this is fed above all through the game, a spontaneous activity in which children are committed to having fun. It also highlights how motor education stimulates the process of socialization and communication, transforming the elementary affective state of sociality (Need to be together) into social sentiment, that is, in the sense of belonging, cohesion, understanding, and social responsibility.
Motor activity as a drug for the development of personality in the developmental age: literature review							
Physical education during the first school cycle: A brief social psycho-pedagogical summary	Altavilla and Di Tore (2016) University of Foggia, university of Basilicata, Potenza, Italy	Number of children not specified 3 - 6 years old	The article investigates the educational relationship between motor activity and learning in childhood, highlighting the need for motor space as a potential place for education and the formation of personality. Some pedagogical	Not specified	Journal of Physical Education and Sport	EBSCO	It shows how physical activity is a primary source of learning and relationships. This allows the child to transform reality according to his inner needs, to realize all its potential, and to manifest himself and others in multiple aspects. It is necessary to plan stimulating and creative

Title	Authors year nation	Number of children age of children	Topic E setting	Duration of experiment	Journal	Search engine	Results
			importance is given to the activity of play, as the most important source of learning and relationship, which allows the child to transform himself into a reality according to his inner needs.				activities means sharing together fun paths, that stimulate the imagination, and lead to completing and transforming the material available and using it in a different and free way to rediscover, Moreover, the sense and joy of childish fun.
Non-verbal communication at school age: Educational-inclusive aspects	Sgambelluri (2017) Italy	Number of children not specified 3 - 10 years old	Several studies are cited in which the importance of the body in the communicative processes in kindergartens and elementary schools is emphasized, which regulates the relationship with each other. The body assumes both a cognitive and social function and, together with movement and action, provides an effective response to the communicative need of the subject, explicable through non-verbal language.	Not specified	Pensa Multi-Media, E-Journals	CORE	Non-verbal language is synthesized in a way of "communicating differently" through the motor linguistic method. It is shown how this approach manages to combine exercises in a playful form, to the five senses and the motor potential that the body possesses.
The educational value of corporeality and motor activities in learning of life skills education in school	Rosa and De Vita (2018) Italy	Number of children not specified 3 - 10 years old	The goal is to enhance the body in every school context as a valuable tool to access cognitive, emotional, and relational skills. There is an incentive to create projects within schools based on life skills based education.	Not specified	Journal of Health Education, Sport, and Inclusive Education	Semantic scholar	Through the strengthening of life skills within the school context, the child will develop effective cognitive, communicative, and relational strategies. He will consolidate his identity, and his social and personal skills, which will lead him to embark on a

Title	Authors year nation	Number of children age of children	Topic E setting	Duration of experiment	Journal	Search engine	Results
Relational psychomotricity as a promoter of psychoafetivo development and socialization in children's education students	Santos, João, and Carvalho (2019) Brazil	21 children (10 boys, 11 girls) 3-5 years old	Investigation on the modalities in which relational psychomotricity influences the affective relations in the Infancy school in Brazil. Main objective: to stimulate children to resolve their own socio-emotional conflicts.	2 weeks	Revista Brasileira de Ciência e Movimento RBCM	Sport-discus	lifestyle aimed at well-being and health. Relational psychomotor activities are an effective support to affective-relational problems. Need to investigate in further studies aspects related to the impact of interventions on the psychological development of children.
Body moving towards the "WELL-BEING"	Valentini, Virgili, D'Isanto, and Federici (2019) Italy	All children participating in the studies included in the systematic review should be included. USA: 987 Italy: 187 Egypt: 20 Netherland: 292 UK: 201 Germany: 197 Australia: 105 3-11 years old	A systematic review on the value of motor activity for the development of personality, self-perception, and self-esteem of children from three to eleven years. It also contributes to the harmony of body and mind and to a better quality of life.	Varies depending on the study	Journal of Physical Education and Sport	EBSCO	The effects of the body moving on the child are highlighted. Physical activity is fundamental for the overall development of the whole person, physical, emotional, cognitive, and social. The positive increase in self-esteem emerges through greater participation in motor activities. It also shows how a physical education program at school reduces levels of aggression in favor of stability, determination, and sociality.

Title	Authors year nation	Number of children age of children	Topic E setting	Duration of experiment	Journal	Search engine	Results
Emotional intelligence of physical education and sport teachers	Dokova (2019) Bulgary	25 teachers	It is important that the teacher, primary school and childhood, master both his pedagogical training and his level of emotional intelligence. The level and dynamics of skill development in present and future teachers such as self-control, self-awareness, and social skills, are established.	1 year	Activities in Physical Education and Sport	EBSCO	Teachers who participated in the study demonstrated a relatively high level of development of their socio-emotional skills that support their pedagogical activities. In general, they rely on the empathic approach in the learning process, which translates into trust and mutual respect between the teacher and the children.
Move together, communicate together: Supporting Preschoolers' communication skills through physical activities	Akamoglu et al. (2019) USA	Number of children not specified 3-5 years old	It affirms the ways in which motor development stimulates communication skills related to the social-emotional sphere before and during kindergarten. It highlights the support to the areas of development of the person (Socio-emotional, communicative, cognitive,...).	Varies depending on the study	Early Childhood Education Journal	ERIC	Fundamental importance of physical activity in preschool age. It indicates a potential learning of various communication skills through structured motor activities. Need to set communication goals in physical activity sessions.
Playing a cooperative game promotes preschoolers' sharing with third-parties but not sociale inclusion	Toppe, Hardecker, and Haun (2019) Germany	96 children 4-5 years old	Analyze how and how much the use of cooperative games determines the manifestation of social and prosocial attitudes even during free play.	6 months	PLOS One	Google Scholar	There is evidence of a greater tendency for children to share after they have played a cooperative game than when they have participated in competitive games. Playing individually, however, determines an average level of ability to share.
The impact of adventure education on students' learning	Lee and Zhang (2019)	All pupils participating in the studies included in	A systematic review of 11 studies carried out in kindergartens and primary	varies from days, weeks, and months	JTRM in Kinesio-logy	ERIC	Adventure-based learning positively influences physical and psychological outcomes

Title	Authors year nation	Number of children age of children	Topic E setting	Duration of experiment	Journal	Search engine	Results
outcomes in physical education: A systematic review	United States, Hong Kong, Scotland, Spain, New Zealand.	the systematic review should be included. Division by countries: United States (6 studies): 356 Hong Kong (2 studies): 127 Scotland (1 study):224 Spain (1 study): 125 New Zealand (1 study): 180 3 - 10 years old	schools in the USA, Hong Kong, Scotland, Spain, and New Zealand. It investigates the effect of adventure-based learning on the physical and psychological performance of children.	depending on the study.			in a physical education context. Most studies emphasize the effects on affective growth and outcomes of social and emotional learning (Enjoyment, self-expression, social interaction).
How should physical education work in early childhood education be?	Arufe Giráldez (2020) Spain	Number of children not specified 3-6 years old	Training of physical education teachers in some kindergartens in Spain. It refers to the implications that the movement has on the cognitive, affective, and relational sphere in children from 3 to 6 years. Gardner's theory of multiple intelligences is also taken into account.	Varies depending on the study	Retos: Nuevas Perspectivas de Educación Física, Deporte y Recreación	SPORT-Discus	It highlights the importance of motor activity during kindergarten. Educational activities are proposed to be implemented with children from 3 to 6 years.

Title	Authors year nation	Number of children age of children	Topic E setting	Duration of experiment	Journal	Search engine	Results
Evidencia de la didáctica como resultado de un programa de formación docente en psicomotricidad fina /Evidence of the application of didactics in the classrooms, after training on fine psychomotricity provided to early childhood education teachers	Roz Faraco, Linares Baeza, and Martínez-Heredia (2022) Spain	12 teachers 2-5 years old	Training of teachers on psychomotricity. Design of 16 psychomotor activities. Teacher training also provides a sense of reflection and empathy with the global processes that favor the integral development of children.	Varies depending on the study	Retos, 4:5	EBSCO	Teachers have designed psychomotor activities with various elements effective on the cognitive and social aspects in children, through the resolution of conflicts present in each of the activities. Psychomotricity transformed into an activity of motor ability has favored the integral development of children. Motor skills are a process that leads to greater maturation and awareness in children.
The role of physical activity promoting thinking skills and emotional behavior of preschool children	Wang (2022) Institute of Physical Education, Ningxia University, Yinchuan, China	366 children (188 boys, 178 girls) 5-6 years old	Physical activity is crucial, not only for the normal growth and development of children but also for emotional and social behavior. The purpose of the article is to determine the relationship between physical education and the social and emotional development of preschoolers.	3 months	Psicologia: Reflexão e Crítica	Springer Open	The main regularities of the influence of physical education on the social and emotional behavior of children were established. Based on the results, there is a positive correlation between age, physical education, and socio-emotional behavior. Gender differences are not statistically significant when it comes to the effect of physical activity on social and emotional behavior.

5. DISCUSSION

What unites the majority of the selected studies is the importance of cooperative play and its values of interdependence, collaboration, and mutual respect. This type of activity promotes the development of social skills. Through research [Finlinson et al. \(2000\)](#) conducted with thirty-nine children aged 4–5 for a period of about seven weeks, the difference in behaviors activated during the performance of collaborative or competitive games emerges. It is clearly demonstrated that negative behaviors towards peers are mainly manifested during competitive activities, in which the subjects must achieve a goal by demonstrating their superiority over the others. Conversely, positive behaviors are significantly greater during and immediately after collaborative games. Therefore, the need to promote an education based on inclusion, help, support, and mutual respect within schools is highlighted, precisely those values transmitted by collaborative play. The same proposal to include collaborative activities during physical education in the classroom is supported by [Dyson \(2001\)](#). The latter, being a great supporter of the effectiveness of the cooperative method within schools, criticizes those who claim to apply the cooperative method without knowing its fundamental requirements. For this reason, he offers two classes of 5–6-year-old children a program of eight lessons with collaborative methodology, divided between basketball and volleyball activities. Furthermore, the study includes a series of interviews with pupils and teachers in order to understand the prejudices existing on this methodology and the impressions aroused after having experienced it. The results that emerged at the end of the experience show an improvement in not only social but also motor skills. In fact, the participants themselves affirmed that collaboration and mutual interdependence in collaborative activities foster both self-responsibility, but also and, above all, the will to improve oneself to guarantee the success of the team, supported by the commitment of all and each ([Dyson, 2001](#)). A further article analyzes the consequences that occur on children's behavior after participating in collaborative games. The ninety-six subjects involved in the study [Toppe et al. \(2019\)](#) aged between three and five years old and attending Kindergarten, take part in collaborative courses, in which aspects such as mutual understanding, communication, support, and respect. The results show precisely the increase in sharing and comparison skills after the implementation of collaborative games. Physical activity is essential, not only for normal growth and development but also for emotional and social behavior. In the study by [Wang \(2022\)](#) 366 children aged 5–6 years were taken into consideration, demonstrating that physical activity has a positive effect on critical thinking, social and emotional well-being, new knowledge, interaction with people, and group games. The novelties brought about by this study are the experiences and a significant improvement in the personal development of children, even if only through the intensification of physical activity, in groups and not. Various authors also place particular attention on the environment in which motor education activities take place. The results clearly show the importance of providing stimuli to children, so that they can be motivated to get involved and challenge themselves in meaningful activities ([Gubbels et al., 2011](#)). During the Kindergarten years, pupils develop several related skills, including motor skills and communication skills. Several authors highlight different communication teaching strategies and describe how professionals must create an engaging environment by providing meaningful opportunities so they can learn important communication skills while also developing fine motor skills. The support that motor activity gives to the person's development areas (social-emotional, communicative, cognitive, ...) is affirmed. Hence, engaging in physical activities during the kindergarten years is a critical part of a child's development ([Akamoglu et al., 2019](#)). Many studies emphasize the benefits that the act of "moving" brings from 3–6 years. The use of physical activity as a "drug" is underlined, a kind of remedy that acts in depth and ensures that they can take possession of an essential element for their growth: their own personality. Corporeality acquires a very important meaning in the developmental age, since, precisely with this means, the child is able to express his emotions and moods, establish relationships with others, and acquire knowledge and experience. Precisely for this reason, the proposals of numerous researchers derive

from movement, exercise, and play, since these aspects turn out to be, in the evolutionary process, a real "drug" to mature and increase one's personality. In fact, play and physical activity are in close connection with the personality and it is by educating it to be active and healthy that adequate and solid maturation is promoted. Various programs have been proposed within school contexts, especially in infant schools, where motor skills are promoted and encouraged, both in the form of games and with well-structured exercises. There are numerous positive feedbacks that have underlined the physical-coordinative improvements and the consolidation of the numerous areas of the subject's personality. In general, it is essential to motivate them to be active subjects, thus allowing them to "mentalize" their own character. In particular, it emerged that physical exercise at school contrasts immobility and supports the growth of movement, coordination, and motor management skills. Furthermore, by proposing structured activities together with free and team play, a greater ability to socialize is promoted (Valentini et al., 2015). In fact, physical activity is also interpreted as a primary source of learning and relationships. This allows the little one to leverage his own needs to change the reality that surrounds him, expressing his own potential and manifesting himself and others in multiple aspects, desires, and feelings. Teachers are encouraged to plan stimulating and creative activities. This means sharing fun itineraries with the children, which stimulate the imagination. It is the task of educators to rediscover the meaning and joy of childhood fun. Furthermore, the educational training action of motor activity in the evolutionary path is expressed in the relationship between people. This is mediated by body language, by the emotional involvement that animates interpersonal relationships. For this reason, we should never deprive physical activity of its relational, emotional, and experiential part, in this way, there will be learning (Altavilla & Di Tore, 2016). From this point of view, the movement becomes a means to "communicate differently". The body assumes great importance in the communication processes, which regulate the relationship with the other. In carrying out this communication activity, the body assumes both a cognitive and a social function and, together with movement and action, provides an effective response to the subject's communicative need, explicable through non-verbal language. An approach based on non-verbal communication manages to combine playful exercises with the five senses and the motor potential that the body possesses (Sgambelluri, 2017). Corporeality, therefore, becomes a valuable tool for accessing cognitive, emotional, and relational skills. The education system must be pushed to encourage the creation of projects, within schools, based on the use of motor activity to promote and develop the concept of "Life Skills Based Education". In fact, it is important for the latter to be strengthened within the school context. Corporeality and motor activity are essential to promote those skills that unite emotions, thoughts, and actions. In this way, the child will develop cognitive, communicative, behavioral, and relational strategies. He will thus consolidate his identity, in his social and personal skills, which will lead him to undertake a lifestyle aimed at well-being and health (Rosa & De Vita, 2018). Furthermore, a recurring theme of these researches is the positive increase in self-esteem through greater participation in motor activities. The implementation of a program of physical education at school, in fact, reduces the levels of aggression in favor of newfound stability, determination, and sociability. There is a need to push for the recognition of physical exercise as an essential element in the school curriculum for the benefit of children, future adults, and tomorrow's citizens. The final result, therefore, leads to a permanent and sustained growth towards "well-being", highlighting physical activity as a fundamental means for the overall development of the whole person: physical, emotional, cognitive, and social (Valentini et al., 2019). In a systematic review Lee and Zhang (2019) of eleven studies, the effects that adventure-based learning brings on physical and psychological performance, capable of involving the whole body, are investigated. The approach used served to stimulate the pupils to work to improve physically, but also psychologically. Most of the investigations analyzed the effects found on the affective, and social aspects (amusement, self-expression, social interaction), and an improvement in self-awareness and well-being of the group under consideration emerged. The movement brings numerous

consequences from 3-6 years, especially on the cognitive, affective, and relational side. Taking into consideration Gardner's Theory of Multiple Intelligences, we underline the importance of proposing educational activities that take into account all students, their uniqueness, and diversity of intelligences, focusing the interest on the bodily-kinaesthetic, intrapersonal, and interpersonal aspects. Basically, it is more appropriate to use the body, direct experience, and the relationship with the other to direct the little ones toward knowledge. Especially during kindergarten, an approach to knowledge that favors the use of the body, direct experience, and relationship with the other is preferable (Arufe Giráldez, 2020). Other valid strategies for dealing with aspects relating to personality and emotionality are psychomotricity and play. In one study Santos et al. (2019) twenty-one children, aged 3-5 years, were taken into consideration. The main objective is to stimulate them to resolve their socio-emotional conflicts through the symbolism of the game. It emerged that sensitivity, affectivity, and relationships reside in the body. This has given rise to an educational practice called "Relational Psychomotricity". Psychomotricity, therefore, is a good means for the maturation and awareness of individual and social aspects from 3-6 years. Analyzing the results of a Participatory Action Research (PAR) carried out in the state of Carabobo (Venezuela), using a sample made up of twelve teachers who designed sixteen psychomotricity activities, they favored the integral development of children, leading them to greater maturation and awareness of itself (Roz Faraco et al., 2022). From this perspective, a further necessary aspect emerges for the child to be able to develop his or her personality in a positive way: the importance of the figure of the teacher. The pedagogical training of the teacher is valued, but also, above all, the level of his emotional intelligence. In a study Dokova (2019) in fact, those dynamics necessary for the development of certain skills in present and future teachers are established, such as self-control, self-awareness, and social skills. The twenty-five teachers who participated in the study demonstrated a relatively high level of development of their social-emotional skills. In general, it is important to emphasize the empathetic approach in the learning process, which results in mutual trust and respect between the teacher and the children.

6. CONCLUSIONS AND REFLECTIONS

From the analysis of the studies taken into consideration, the importance that the ludic-motor practice has in the life of each individual emerges; in particular, it is emphasized how much it is necessary to take care of and pay attention to motor development during the period of school life, starting from kindergarten onwards. The scholastic path, in fact, has the task of shaping and accompanying the personal development of each individual. When the pupil enters school at the age of three, he brings with him all that baggage of experience, which, above all, involves his emotional sphere.

The school must have as its main objective that of helping the pupil to develop in every aspect. If the teacher pays attention to the emotional dimension, there will be positive repercussions both on the cognitive sphere, linked to learning, and on the relational sphere, linked to interaction with others. It is desirable that the teacher transmits knowledge not in a mechanical and mnemonic way, but by stimulating curiosity, deepening their knowledge, and giving them the opportunity to experiment and make discoveries firsthand, so that they are capable of putting themselves on the line even in situations and contexts that are different from those they usually face. From this point of view, the school aims to fight those values imposed by the individualistic and competitive society of today and places collaborative dynamics at the center.

Dewey himself summarizes the concept of a Person as a union between an individual who is part of a community and an autonomous being. Education and, therefore, the teacher must make the observation and knowledge of each pupil's personality a starting point, which can then be expanded towards an improvement in social skills, which serve to live peacefully with other subjects such as respect for the rules, the ability to dialogue and compare and collaborate.

In any case, what unites all these aspects is the function that physical activity covers. Proposing ludic-motor activities in Kindergarten will stimulate the achievement of the main objective: to support and accompany the global, personal, and motor growth of children as Persons. In order for this to happen, the position that the environment occupies during the performance of motor activities is fundamental, an aspect that often emerged during the research. In fact, it has been found that attending welcoming spaces leads children to be more dynamic and active, both physically and mentally. Feeling welcomed and at ease in the gaming environment affects mood, and this, consequently, also positively influences socialization with peers.

In this respect, the teacher plays a fundamental role. In fact, the educator is the one who favors the pupil's involvement in the activities proposed in the classroom, transmits values, and conveys social expectations, committing himself, at the same time, to promoting the methods of behavior that are appropriate and suited to the contexts in which one finds oneself (Florio & Shultz, 1979). The teacher also promotes the manifestation of social behaviors among the students of the class/section, avoiding any social exclusions and facilitating the creation of a collaborative and cooperative climate for carrying out the activities and achieving the objectives (Cohen, 1986; Solomon, Watson, Battistich, Schaps, & Delucchi, 1996). Another important aspect emerges from this consideration. Using the ability to use his own body and movement, the student is able to communicate how he feels, whether or not he feels discomfort in certain contexts or situations, whether he feels pleasure or not towards those around him. The body, in addition to expressing the intrinsic motivations of the subject, is the most effective source of communication and relationship. Getting the little one to use gestures and movements to express feelings can also clarify and strengthen verbal communication.

This is also necessary to consider motor activity as an indispensable means for the integration and inclusion of all. In fact, a collaborative methodology helps to pursue the need to belong thanks to dialogue and the exchange of opinions, in order to create bonds and healthy relationships solidly based on friendship. If everyone is free to express their opinion in a context characterized by a harmonious collaborative climate, the need for security will also be satisfied. Consequently, aspects such as self-esteem, self-control, fulfillment, and mutual respect materialize through the relationship with others and putting oneself into play within the group. Therefore the context and the environment contribute to the modification of the personality traits of each one, and since the individual is a union between body and mind, it can be understood how, then, ludic-motor activities can stimulate the dimensions of the personality. Every motor experience that the child will face, especially if lived serenely, will enrich and modify the traits of his personality, his behavior, and his attitude, which are constantly changing. The time dedicated to playful motor activities affects the strengthening of self-image, one's abilities, skills, sensations, and emotions. For example, a pleasant self-view increases the subjective process of self-esteem, which seems to be more consistent in children who perform physical activity. As a specific methodology of this working method, Cooperative Learning turns out to be very important.

Within the group, each subject has a specific role which leads him to be responsible and inclined to confront himself directly, in a clear manner, with the other members to present his work and his ideas on the task to be faced (Johnson & Johnson, 1990). The game, especially the collaborative one, turns out to be of vital importance for the formation of the personality and plays an essential role in the development of intelligence. According to Baumgartner and Tallandini (2002) the ludic experience promotes various skills: the ability to ask questions from the perspective of others, the ability to collaborate to achieve a common goal, the propensity to dialogue to find a solution, and the expansion of creativity as a tool for knowing oneself and for interacting with others in an expressive way (Baumgartner & Tallandini, 2002). An experiment conducted by Bano and his colleagues also clearly established a correlation between the motor activity and social skills of children between the ages of four and six. These skills were

increased by a motor intervention program which also included group activities. After the experiment, an improvement in positive social behaviors was found, despite the initial hypotheses predicting the opposite (Bano, Ikonomi, & Muka, 2018). Basically, keeping everyone's uniqueness always at the center of every ideal, all the participants are actively involved in the ludic-motor activity, recognizing that the final goal is achieved thanks to the diversity of ideas and approaches of each individual. At this point, it becomes essential to underline the social needs that playful motor activities develop.

These needs stimulate a feeling of belonging to a group, which can be the section/class, accentuating the interpersonal relationships between peers. These relationships are important because they give the possibility to develop social skills, which are found in the creation of a healthy and collaborative climate. The collaboration between the subjects can be seen in the mutual willingness to participate in an activity or a game. From this, it is possible to understand the meaning of the famous saying, "The important thing is to participate". In this case, the value shifts to the willingness to get involved, and not to the result of victory or defeat that derives from it. They do not play against each other but challenge themselves to reach a shared goal. In the period from three to six years, therefore, it is important to leave the child free to explore the surrounding reality, experiment, and compare notes with peers, giving the best of himself to achieve good personal, social, and motor mastery.

Among all the various aspects that emerged, motor activity leads to becoming aware of oneself, one's body, and one's abilities, coordinating with others, experimenting, and living relationships with peers and teachers. Motricity, expressed through gestures, movements, and postures, is an absolutely revealing expression of personality, needs, emotions, feelings, and thoughts.

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