



ISSN Online: 2164-0408 ISSN Print: 2164-0386

Analysis of an Ontological Plan for Physical and Sports Education in the Italian Cultural Reality: A Preliminary Survey

Pietro Luigi Invernizzi¹, Gabriele Signorini¹, Raffaele Scurati¹, Franco Mauro², Marta Rigon¹, Athos Trecroci¹, Francesca D'Elia³, Gaetano Raiola⁴

How to cite this paper: Invernizzi, P. L., Signorini, G., Scurati, R., Mauro, F., Rigon, M., Trecroci, A., D'Elia, F., & Raiola, G. (2023). Analysis of an Ontological Plan for Physical and Sports Education in the Italian Cultural Reality: A Preliminary Survey. *Advances in Physical Education*, *13*, 255-287. https://doi.org/10.4236/ape.2023.134022

Received: September 14, 2023 Accepted: November 20, 2023 Published: November 23, 2023

Copyright © 2023 by author(s) and Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

http://creativecommons.org/licenses/by/4.0/





Abstract

An applied and hermeneutic "material ontology" proper to the humanities and social sciences was focused on in this paper, starting from the general philosophical definition of ontology as a general view of reality. The importance of ontologies is recognized in several fields of disciplinary research, including educational and training contexts, such as those specific to physical and sports education. The "vision" of this study conceives the ontological tool as a formal description of a domain of knowledge based on direct lived and concrete experience in the specific physical education field. To disregard the community of practice is to lose all the reflexive intentionality typical of the narrative proper to education learning and the training processes towards which the school community is directed. The narrative of this work is related to a reconceptualization of reality starting from the interpretations that the teaching community attributes to some key terms of physical education. Logical, abstract, and conceptual rigor is not the only way scientific thinking is expressed; experience feeds on analogical relationships, and the recombination of implicit meanings is another means to favor cultural acquisition. Based on awareness and emotions, the human relationships put into play by a competent teacher represent the elements through which physical education's contents and operational approaches acquire a precise semantic value. Some scientific paradigms that have changed the vision of reality have been semantically juxtaposed with the experience of the community of practice and historical analysis, creating the indispensable premise for a preliminary survey based on a qualitative study to define the cultural identity of physical and sports education in Italian reality.

¹Department of Biomedical Sciences for Health, Università Degli Studi di Milano, Milan, Italy

²Campus LUDES, Budapest Semmelweis University, Lugano, Switzerland

³Department of Political and Social Sciences, University of Salerno, Fisciano, Italy

⁴Facoltà Scienze Umanistiche e Dipartimento Scienze Motorie e Dello Sport, Università Telematica Pegaso, Napoli, Italy Email: pietro.invernizzi1@unimi.it

Keywords

Scientific Paradigms, Historical Analysis, Semantic Knowledge, Etymological Identity, Field-Based Community, Integration of Knowledge, Physical Education, Sports Education

1. Prolegomena

1.1. Rationale

In the Italian school reality, physical and sports education is not always considered to have high educational value as an essential discipline that teaches to integrate positively into society. Some cultural values recognized and expressed in scientific research and in ministerial programmatic indications (such as contributions to health as a healthy lifestyle, improvements of the intellectual, social, and emotional sphere, interdisciplinarity with other school subjects for a unitary and complete education), often remain on paper and do not result in a concrete verification of the actual vision that is attributed from school reality.

The "gain knowledge" of a semantic interpretation of the key terms characterizing physical and sports education represents a direct way of acquiring information revealing scientific, professional, and pedagogical culture attributed to physical and sports education by the educational context constituted by the teachers of this discipline and other subjects.

From this investigation may emerge a first constructive criticism valid to implement doctrinal, technical, and didactic corrections, allowing an increasingly effective alignment of the theoretical, programmatic plan with that of the practical community by searching for an interpretative homogeneity related to what, how, and why focusing on a specific type of proposal concerning the needs and characteristics of the school context considered.

1.2. Overall Aims

This project aims to gain knowledge of the cultural value the school community attributes to physical and sports education through the semantic interpretations of the forms of application characterizing it (i.e., physical and sports education; play; sport; gymnastics; psychomotricity; motor education; motor sciences).

1.3. The Beginning

Starting from the analysis of semantic interpretations of the most directly involved community of practice, i.e., the teachers (the effectiveness of teaching depends on the preparation and enthusiasm of teachers who, by contagion, determine the willingness to learn students), future studies will be directed towards other stakeholders of the school community (pupils, parents, teaching managers) and the analysis of how the teaching methodology implemented by the teacher can influence the semantic interpretation.

1.4. Definition of the Physical and Sports Education "Umbrella Term"

With particular reference to the community of practice, the first principle on which the ontological plan is based relies on a definition that, founded on the philosophical-paradigmatic and historical concepts that will be defined and deepened in the introduction, interprets it as a "discipline using human motor and sport skills to stimulate and promote physical, motor, social, affective, intellectual and moral growth of the subjects throughout their life." However, further terms linked to the different forms of application that characterize it (gymnastics, psychomotricity, motor education, sport, play, sports education, motor sciences), under their peculiarities, must also refer to this formative "first principle".

2. Introduction

In this study, the ontological level is inextricably linked to the specific didactics of physical education and the educational relationship between pupils and teachers, which influences learning (Wenger, 2006).

The semantic analysis of the chosen terms is aimed at an informed reflection on the educational principles of a culture of physical and sports practice and the delicate balances that govern human relationships, conditioned by the educational needs and emotions brought into play by the type of relationship that is created. Physical education teachers can influence human life and the value placed on man, culture, and the meaning of existence.

Bringing out all these didactic-educational principles and values through a symbolic terminological plan is daunting. Metaphorically, it is like fitting a cube of large volume into a totally different form, such as a cylinder of reduced proportions. The conceptual road map through which we will define the most educationally significant "language identity" will refer to some scientific, philosophical, and historical reference paradigms. The emerging key concepts related to the need for semantic analysis are related to the role of the teacher, the educational principles of a practical physical and sports culture, and the delicate balance that controls human relationships based on emotions and relations.

2.1. Scientific Paradigms Based on the Universe's Knowledge, Life, and Human Beings Are Changing

Quantum physics studies has totally changed the way we understand the universe, life, and mankind with respect to the view of reality constituted by the determinist and reductionist paradigms of classical Newtonian physics (Materia & Baglio, 2005). The principles of "consciousness" and the new paradigms of indeterminism and holism typical of "quantum physics," through a new conception, as opposed to scientific positivism, allow a better understanding as reality is an ever-changing dynamic process; algorithms and statistical analysis cannot predict it because of its indeterminacy (Cziko, 1989; Materia & Baglio, 2005).

This way, direct observations and only concrete experience allows us to grasp those elements and nuances that determine awareness of a specific phenomenon

(Mariani & Torrengo, 2021; Yorks & Kasl, 2002).

Considering this conception, semantics is the true ontology, and it is based on the meaning we attach to words; semantics is free (it is based on the meaning we attach to "reality" and is related to individual experience), the syntax is deterministic (it is based on conventional symbolic-informational aspects, which help socialize and share "reality") (Smith, 2020).

"There exists in a deeper reality what is manifested in appearance. Only if you have an experience, only if you have been or are within a system you can fully understand it by attributing to it a meaning that does not arise only from books and scientific papers but is based on an experienced humanity of relationships" (Pasterniak & Cynarski, 2014).

Establishing an ontological reference level of the discipline should contemplate these considerations that underlie a better understanding and awareness of self as individuals and physical education teachers. In this study, we have focused on an applied, descriptive, and hermeneutic ontology (Varzi, 2005) strictly linked with the practice of physical education in its educational and training contexts (Galliani, Petrucco, & Dal Bon, 2004). Physical education should aim to "the attainment of full self-awareness and mastery" (Baena-Morales, Jerez-Mayorga, Delgado-Floody, & Martínez-Martínez, 2021; Opstoel et al., 2020). Consciousness and full self-awareness represent a very current development in quantum physics studies, which, as already pointed out, are stimulating philosophical questions and revolutionizing the way we understand existence and the universe. Consciousness is also a quantum phenomenon, a private and well-defined state. An experience based on sensations and feelings carries the meaning of what is known (Pasterniak & Cynarski, 2014).

An experimental direct approach in one's educational experience enables people to observe the world from multiple angles (body, emotionality, mind) (Virno, 1951), gaining a direct and stronger dimension of reality than a logical interpretation based solely on "external knowledge" of study and information (Hodgson, 2002).

The integration of consciously experienced internal and external reality (study and experimentation) permits the use through the ontological expression of an emotional part of life ignored by scientific positivism, which proves to be essential to describe the symbolic-informative aspects but inadequate to explain the semantics.

The subjective-phenomenological experience (the sensations associated with the emotional experience) allows sensory information to be stored in different areas of the cortex integrated with the hippocampus, enabling a particular meaning to be attached to the experience (semantic memory) applicable to the context in which it was acquired (LaBar & Cabeza, 2006; Loprinzi, Frith, & Edwards, 2019).

Sometimes, the term sports can evoke a limited idea in some school teachers, who associate the term with negative values such as excessive selection and competitiveness, excessive stress, little time to study, etc., while denying a possible

positive value (Merkel, 2013) due to a negative personal experience.

The concepts of psycho-physical unity, physical literacy (Durden-Myers, Whitehead, & Pot, 2018), embodied mind (Karssiens, van der Linden, Wilderom, & Furtmueller, 2014; Varela, Thompson, & Rosch, 2017), and the most current findings of neurophysiology are the reference for understanding how the entire development and consciousness of human identity is rooted in the body (Baumeister, 2011; Karssiens et al., 2014).

A method currently used to interpret reality is based on a conscious and integrated multilevel system in which "the part is the whole, and the whole is the part" in a system of thinking (Morin, 2000: p. 132; WHO Regional Office for Europe, 2022). This concept of consciousness and system thinking, already partly intuited in Leibniz's monads, is thus not a prerogative only of human beings but is present in the whole of realities (Rescher, 1991).

Leibniz places trees in the lowest hierarchy among living beings, but they are beings endowed with intention too, capable of making "a calculus of efficiency." Forest trees are an example of a mutual adaptation that allows them to survive. Scientific studies show that when one tree falls ill, the others help it recover by providing it with the necessary energy. According to this principle, the forest also provides energy to the stumps of cut trees, which are kept alive for decades by other trees, as can be verified by analysis of the circles marking their age (Rescher, 1991). Referring to Leibniz's thought, each monad perceives the universe through its unique perspective contained within its being. This way, quantum theories of physics highlight a new way of understanding the relationship between mind and body in humans, re-proposing the idea that humans are "spiritual beings temporarily imprisoned in a machine-like physical body" and how "Educating the mind without educating the heart is not educating at all" (Hameroff & Penrose, 2014).

Soul, spirit, love, and energy seem to be terms extremely distant from the concreteness of physical and sports education teaching and even more distant from any concept of a scientific nature, but they are not. The relationship between physical education teachers and students is fundamental to learning and is mediated by bodily action that must express energy, empathy, and a contagious state of mind. This enhances the concept related to an education aimed at health and body strength (Sturgeon & Zautra, 2016). The human habit of reasoning by contrasts represents a reductive and partial way of perceiving truth (Gregory, 2001). Bonhoeffer (1983) highlights a multidimensional conception of truth, in which the human relationship is more important than the aseptic, analytical and fractional description of reality.

Developing flexible and dynamic thinking is crucial, as it leads to the understanding that truth is the product of an exercise in reconciling multiple dimensions and interpretations of reality. A concrete experience in the field represents an essential element of ontological research in sports and exercise science education (Buccino, Colagè, Gobbi, & Bonaccorso, 2016). Energy, relationship, awareness, and experience directly relate to the operational forms through which the

teacher's competence is expressed and how these different operational forms of physical education are interpreted and take on a precise meaning (Figure 2).

2.2. The Conception of Physical Education Identity of Etymology

Etymology is the study of the origin and history of words based on analyzing their formal and semantic relationships to other words that came before or after them in time. The boundaries of etymology are unclear, and the motivation for choosing a term can also be addressed to its meaning and the interpretative ideas emerging from it. The reference community shares these ideas in a specific historical and social context, such as the sciences that deal with teaching and teaching the methodology of human and sports motor skills (Leontiev, 2013; Pennebaker, Mehl, & Niederhoffer, 2003). The "developed" etymologies that work in theory do not always "hold up" once they are placed in the context in which the word is historically "experienced" and documented (Buccino et al., 2016; Snowden, Griffiths, & Neary, 1995).

Hence, the identity of physical education etymology depends on the meaning that the different cultural contexts have attributed to this discipline in the different historical moments of time characterized by a modification of the terms of reference. The paragraphs 1.3. and 1.4. will briefly analyze the cultural context that has characterized a terminology change in Italian reality over time.

The First Key Message

The ontological level of physical education must consider the community of practice. Such a community gives rise to the meaning that emerges from the daily experiences of its members. This ontological level is expressed in the interpretative semantics attributed to the terms through which its contents are identified. In particular, a clear analogy between some scientific and philosophical paradigms and some characteristics attributable to engaging and effective teaching, such as energy, consciousness, relationship, and experience, are immediately recognizable.

2.3. Past and Present, Ancient and Modern, a "Guiding Compass" in the Training of Competent Teachers

2.3.1. Birth, Evolution, and Present of the Physical Education and Motor Sciences

Gymnastics was born at the end of the eighteenth century in the institutes of Philanthropists. Physical education, born as a term in 1762, arose in the context of the pedagogical needs of the Enlightenment period as part of the trinomial "physical, intellectual and moral education" aimed at seeking the maximum perfection of the human being (Grifi, 1989). In particular, the "Italian school" in its different evolutionary phases is a school of synthesis, which refers to three international schools developed in the1800s: the German school of Jahn (1778-1852), mainly aimed at training through the gymnastics of an athletic soldier (Boni, 1962; Frasca, 1979; Ulmann, 1968; Valletti, 1893); the Swedish school of Ling

(1776-1839), which proposes a hygienic health and preventive gymnastics based on studies of anatomy and physiology (Boni, 1962; Frasca, 1979; Ulmann, 1968; Valletti, 1893); the English school of Thomas Arnold (1795-1842), which proposes sports education in schools and colleges to promote character education based on self-control, fair play and team working (Boni, 1962).

In Italian reality, Rodolfo Obermann emerged among the prominent personalities who have had a more direct impact on the educational processes of physical education and movement sciences. He was a Swiss gymnastics instructor who followed the German gymnastics school and was called to Turin to train the army (Boni, 1962; Frasca, 1979). In 1846 Niccolò Abbondati published "Institutions of art gymnastics..." in Naples, inspired by the scientific basis of Borelli's "De motu animalium" and by Ling's Swedish gymnastics (Di Donato, 1984). In 1859, in Turin, the "Casati" law 3725 regulated the scholastic teaching of gymnastics in schools (Boni, 1962). In 1878, with the law 4442 of the Minister of Public Education De Sanctis, the obligation of "educational" gymnastics was realized in primary, master, and secondary schools (Di Donato, 1984; Frasca, 1979). In 1893 a dispute arose in Italy between different gymnastic schools: the conservatoires (Gamba, Valletti), who wanted traditional gymnastics (of German origin); the reformatories (Baumann), which presented an integrated pedagogical orientation; the xenophiles (Mosso), who promoted an address linked to games and sporting activities and to Swedish gymnastics (Pagliani). In 1909, with the Rava Daneo law, the term gymnastics was replaced by the term physical education, and this was made compulsory in all school orders and the activity proposed was "gymnastics, gymnastic games, target shooting, choral singing, and other educational exercises aimed at reinvigorating the body and building character" (Boni, 1962; Di Donato, 1984; Frasca, 1979). Baumann, in 1913 and in a previous book (1873), utilized the term psychokinesis to highlight how "mind and body" are closely united and interconnected (Baumann, 1873, 1913). It can be considered the precursor of the term psychomotricity utilized by French physical education teachers in the seventies of the twentieth century to indicate a didactic aimed at self-awareness and developing all the functions (cognitive, social, affective) of personality.

In 1923, with the Gentile reform, physical education was removed from school programs and entrusted to ENEF, the National Body for Physical Education. In 1926, the Opera Nazionale Balilla took over the powers of ENEF to provide for the physical and moral education of youth aged 6 to 18. In 1937, the GIL (Gioventù Italiana Littorio) was established, absorbing the ONB (Opera Nazionale Balilla) and dealing with "...the unitary and totalitarian organization of the youth forces of the fascist regime, set up within the national fascist party, reporting directly to its secretary". It includes young people from 6 to 21 years old classified in the organizations under the Italian names "giovani fascisti, avanguardisti, balilla, figli della lupa, piccole italiane, giovani italiane, giovani fasciste" (male young fascists, avant-gardists, paramilitary groups—balilla, sons of

the wolf; female little Italians, young Italians, young fascists) (Di Donato, 1984; Frasca, 1979).

After the fall of fascism in 1943, Andreotti asked for the definitive closure of the GIL in 1946 (which then took place in 1975). With Minister Gonella, physical education is reintroduced into schools. In 1958, Minister Aldo Moro promulgated Law 7/2 No. 88, "Provisions for physical education" (Moro, 1958), a "framework law" reconfirming the obligation of physical education at every school level and establishing a complementary practice of sporting activity carried out by physical education teachers for 6 hours in addition to the 18 curricular hours (Di Donato, 1984; Frasca, 1979).

In 1962, with the law 31/12 n° 1859, Eugenio Enrile reformed the single middle school (Enrile, 1962), giving new dignity to physical education. From 1962 onwards, new programs and new ministerial indications were issued in all schools. The presence of physical education in all schools was reaffirmed. More specifically, in 1968, the state nursery school was established, whose programs are explained with the D.P.R. 10/9 n. 647 (1969). The DPR n.647 ensured a harmonious development of the body by proposing movement games, figurative and imitation exercises, rhythmic games, and dance through a playful approach that was proposed several times a day (Di Donato, 1984). The "Orientamenti" programs indicated how to carry out the motor activity in every school of order and grade. In 1979, with the Ministerial Decree of 9 February, the programs of the lower secondary school were established (D.M. 9/2, 1979). With this law, physical education promoted the balanced psycho-physical, intellectual, and moral maturation of the pre-adolescent and his better social integration by soliciting harmonious bodily development.

In 1982 (D.P.R. 1/10 n. 908, 1982), the new high school programs were instituted, with a particular note to the teaching institutes, in which there was particular attention to motor training for future nursery and primary school teachers (Di Donato, 1984). In 1985, new elementary school programs were established, and motor activity was defined as "motor education." Education at primary school is also viewed as an awareness of the value of the body and its expression in a relational and communicative condition. Through this view, body language is integrated into the maturation of personal autonomy. It considers the educational objectives to be pursued concerning all the dimensions of the morphologicalfunctional, intellectual-cognitive, affective-moral, and social (D.P.R. 12/2 n. 104, 1985). In 1997, with the Bassanini law, the school started on the path of decentralization, and school administrative autonomy began to take shape (Law 15 March n. 59, 1997). The principals are replaced by school directors, whose responsibilities are specified in Art. 25 of the D. Lgs. 165/2001 (D.Lgs. n. 165, 2001). School autonomy was promoted in 1999 by the DPR 275/99. Every school can organize its training proposal within the POF (Plan of the Training Offer) through subsidiarity, education, and adequacy. POF is related to managerial and organizational aspects, and every proposal is linked to the territory, culture, history,

and socio-economic situation, depending on the context in which the school is inserted. The teaching staff, therefore, becomes the protagonist of the training process as it is called to choose the most suitable paths in relation to the user's request (D.P.R. 8/3 n. 275, 1999). From 1999 to 2001, school planning based on the Perseus program was activated. It was a three-year course that included counseling in preschool and primary schools about physical education. In 2003, with the Moratti law, the term physical education was replaced in high schools with the term Motor sciences (MS); competencies and OSAs (specific learning objectives) were introduced (Law 28 March n. 53, 2003). In 2010, the "governative indications" for secondary schools were drawn up (D.I. 7/10 n. 211, 2010), while in 2012, the "governative indications" for kindergarten, primary, and lower secondary schools were established (D.M. 16/11 n. 254, 2012). In 2017, "governative indications" were updated for kindergarten and the first cycle of education, where physical education acts as a "hinge" between the scientific and communicative-expressive fields. They clarify the Learning Objectives (Obiettivi di apprendimento, OA) and the competence goals that must be achieved at the end of each education cycle in relation to the curriculum of the disciplines. In 2013, with DPR n.52, sports high schools were established in the secondary school to enhance the curricular and extra-curricular teaching of Motor Sciences (D.P.R. 5/3 n. 52, 2013). One or more sports disciplines are inserted within a cultural framework that integrates the mathematical, physical, and natural sciences, economics, and law knowledge and methods. Six hours are provided dedicated to motor sciences and sports disciplines.

In 2015, in addition to the Three-Year Plan of the Educational Offer (PTOF, ex-art 1 paragraph 14, Law 107/2015), the so-called "good school" reform was implemented (Official Gazette 2015), which had the objective of increasing qualitative and quantitative of motor activity through the inclusion of the figure of the specialist with a degree in motor sciences, which however has never found an application in practical implementation (Law 13 July n. 107, 2015). In 2018, through the 2018/C 189/01 recommendations of the European Council (European Council, 2018), the teaching of European citizenship skills in schools was promoted. With the 2022 administrative law (Art. 103), the use of specialist teachers, graduates in Motor Sciences (MS), was envisaged to teach two compulsory hours of motor education in primary school in addition to the current physical education hours (Law 29 December n. 197, 2022).

2.3.2. Master's Schools, Academies of Physical Education, Higher Institutes of Physical Education, and Faculties of Motor Sciences

Italy's historical, political, and cultural background undoubtedly influenced the birth and establishment of gymnastics schools, academies, higher institutes of physical education, and faculties of motor sciences. The situation after World War I, the advent of fascism, Italy's entry into World War II, and the establishment of the republic all contributed to the proliferation of gymnastics schools and academies with different purposes related to the historical period (Figure 1).

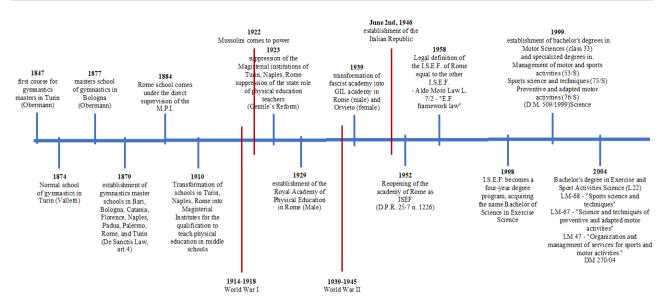


Figure 1. Historical stages of Italian sports institutions: Gymnastics schools, Academies, Higher Institutes of physical education, and Faculties of Sports Science.

2.3.3. The Second Key Message

The historical analysis of the previous paragraphs presents a timeline that high-lights the terminological meaning evolution of physical education and the institutes and faculties that have characterized its training through specific or more general guidelines related to the military, educational-scholastic, hygienic-health, and scientific objectives of these institutions. The terms gymnastic, physical education, psychomotricity (natural evolution of psychokinesis), motor education, and motor science are the specific terms that are emergent in this second key message.

2.4. Birth, Evolution, and Present of Sport

The concept of the sport is not so far from the concept of a party; it is no coincidence that even today, the Olympic Games begin with an "opening party," and some sports start right from a party, a conjunction between sport and entertainment. An example is represented by the "local swimming parties" that were very popular in Germany between 1878 and 1912. The pool was not only the "arena" where exciting competitions took place but also a popular theatre offering entertaining shows, as well as a gathering place with music and dance, food and drink, and sometimes ending with fireworks (John, 1989).

Some past events, such as the Spartakiad organized by the Soviet people, and others, such as the World Gymnaestrada starting in 1953 and still current, have continued this vision/interpretation of "sport" as a moment of meeting, play, entertainment, exhibition. Sports education was born as a phenomenon in England in the mid-nineteenth century. The need to act through sports practice on the new generations spread through an adequate educational process (Ellis, 2014).

In Italy, the physiologist Angelo Mosso, who was considered "the apostle of

sport", wrote "The Reform of Gymnastics" in 1892 and hoped for the abandonment of German gymnastics in favor of Anglo-Saxon type sporting activity. In 1894, the IOC (International Olympic Committee) was established. In 1896, under De Coubertin's general secretariat of the IOC, the first Olympic Games of the modern age were held in Athens. In 1942, the CONI (Italian National Olympic Committee) was established (Law 16/2 n. 426, 1942) to conserve, control, and increase the national sporting heritage and coordinate and regulate sporting activities. In 1966, CONI established the central sports school to support the ISEFs (Higher Institutes of Physical Education) that only provided for physical and sports education, leaving out the competition and elite sports. In 1969, CONI instituted the youth games (Gori, 1982) to make up for the lack of school sporting activity, also caused by many physical education teachers who opposed sporting activity because against the competitive spirit (Commission of the European Communities, 2007). In 1974, the games were announced with the MPI (Italian public education ministry)-CONI protocol and extended from elementary to high school, and the Delegated Decrees came into force in the school environment (in implementation of law 30/7/1973 n. 477), DPR 31/5/74 no. 416, which provided rules for carrying out school sports activities (D.P.R. 31/5 n. 416, 1974). In 1983, the denomination of the youth games for the high school changed, and they were called student championships (C.M. 8/11 n. 304, 1983), preliminarily preceded by the local school championships and by the national and European Criterium. Preparation for these championships was entrusted to the Provincial Union of School Sports Groups. In the 1985/1986 school year, the value of school physical activity in the educational program was reaffirmed (C.M. 3/10 n. 274, 1985). Participation in youth games also had to be extended to those with a lower predisposition to motor activities. In 1997, the youth games and student championships changed their name into "Student sports games" with the "Sport at School" project of the MPI-CONI. The intention was to encourage pupils to participate in the games to spread a motor, physical, and sporting culture.

For primary school, motor education would have a playful nature with the aim of allowing everyone to participate. With the law 4th August 2009, "Guidelines for physical, motor and sport education in secondary schools", the School Sports Center (Centro Sportivo Scolastico) was established (MIUR, 2009). From the 2016/2017 school year, the games resume the wording of "Student Championships" for the first and second-grade secondary school. The DM n° 851, "Advice for innovative projects" evidenced the importance of sport education in project oriented to social inclusion, well being and permanent education (D.M. 851, 2018). The 2021-2022 technical project foresees the Scholastic Sports Center set up in each institute to participate in the student championships. A governative draft law of 2023 reinsert the scholastics "youth games" evidencing the educative value of sport (DDL S.403 of 19/09/2023).

The following tables evidence the agonistic expression of sport in direct continuity with the scholastic sports education route analyzed (Table 1, Table 2).

 Table 1. Modern Olympic games.

Ed.	Years	Place	Principal associated event/ politics or sports event
1	1896	Athens	Birth of Modern Olympic Games
2	1900	Paris	Assignment to Paris to maintain contemporaneity with the Universal Exposition
3	1904	Saint Louis	Assignment instead of Chicago for the contemporary Louisiana Purchase Exposition—
5	1701	ounit Louis	Anthropological Day (competition for races different from white people)
4	1908	London	Assignment to London contemporary to France/British exposition. The first use of the motto "The important thing is not to win but to participate"—First use of the three medals for the awards—Disqualification of Dorando Pietri
5	1912	Stockholm	Inclusion of artistic competitions (figurative arts, music, architecture, literature) as in antiquity until 1936
ND	1916	Berlin	Not disputed because World War I
7	1920	Antwarp	Defeated countries in WW1 banned—First use of the 5-circle Olympic flag
8	1924	Paris	Boycott of Germany. The first use of the Olympic motto (citius, altius, fortius)
9	1928	Amsterdam	The first time the parade was led by Greece and closed by the host country
10	1932	Los Angeles	Great Depression Games: few participants following the global crisis
11	1936	Berlin	Propaganda games National Socialist German Workers' Party. Boycott of Spain. Jesse Owens is the protest. Luz Long's fair play against Jesse Owens in the long run. End of artistic competitions.
ND	1940	Tokyo/Helsinki	Not disputed due to World War II
ND	1944	London	Not disputed due to World War II
14	1948	London	Participation bans for countries defeated in World War II, except Italy
15	1952	Helsinki	First USSR participation—abandonment of Spartakiad (1928-1956)
16	1956	Melbourne	Boycott of the Netherlands, Spain, and Switzerland (against USSR repression Hungarian uprising 1956) and Cambodia, Egypt, Iraq, and Lebanon (Suez crisis)
17	1960	Rome	First and only death from doping (fall in cycling for amphetamine use)
18	1964	Tokyo	First edition in Asia—The last torchbearer was born in Hiroshima a few hours after the explosion of the first atomic bomb.
19	1968	Mexico City	Political massacre before the start of the games—Protest African American athletes against racism—Introduction of Doping Controls
20	1972	Munich	Terrorist event against Israeli representative by Palestinian terrorist organization
21	1976	Montreal	Boycott African countries for apartheid-related issues
22	1980	Moscow	Boycott of USA and other Western countries against Soviet intervention in Afghanistan
23	1984	Los Angeles	Boycott of the USSR and Eastern countries in retaliation for the 1980 boycott
24	1988	Seul	Boycott North Korea—Ban Johnson for doping
25	1992	Barcelona	IOC request for observation of OLYMPIC TREGUE via UN support in case of ongoing conflict—First participation of professional athletes (USA Dream Team)
26	1996	Atlanta	Bomb attack in the Olympic Park
27	2000	Sydney	"the best ever."
28	2004	Athens	The first time the Marathon award ceremony during the closing ceremony
29	2008	Pechino	Squalifica staffetta Jamaica per doping a 8 anni di distanza, per riscontrata positività di un frazionista
30	2012	Londra	criticism on the coincidence of some races with the beginning of Ramadan—participation of Oscar Pistorius
31	2016	Rio	first participation in boxing of professionals
32	2020	Tokyo	postponed to 2021 due to the Covid-19 Pandemic (first time of a postponement, rather than cancellation)—tenders behind closed doors

Table 2. Paralympic games.

Ed.	Years	Place	Principal-associated politics or sports event
1	1960	Rome	The first edition of the Games, called the 9th Stoke Mandeville Games, with the presence of 400 athletes from 23 nations
2	1964	Tokyo	South Africa, excluded from the Olympic Games due to the Apartheid issue, participates in the Stoke Mandeville Games
3	1968	Tel Aviv	The Stoke Mandeville Games are held in a different venue than the Olympic Games
4	1972	Heidelberg	They were held in the headquarters of the physical education institute—the number of participating countries increased with the introduction of the Soviet countries—the disciplines for athletes with visual impairments were introduced for demonstration purposes.
5	1976	Toronto	Known as the Torontolympiad, it is held in a different venue than the Olympic Games. Amputees and blind athletes are participating for the first time.
6	1980	Arnhem	Athletes were divided into four categories: amputees, brain-damaged, visually impaired, and wheelchair-bound—1973 participating athletes
7	1984	New York/Stoke Mandeville	They were held in two different venues, New York (cerebral palsy, visually impaired, amputee, and other categories) and Stoke Mandeville (wheelchair athletes)
8	1988	Seul	The games were officially referred to as the Paralympic Games
9	1992	Barcelona and Madrid	The official Paralympic Games were held in Barcelona, and a week later, the games for people with mental disabilities were held in Madrid
10	1996	Atlanta	First Paralympic Games to be supported by private sponsorship—100 participating nations for 3260 athletes
11	2000	Sydney	A wheelchair basketball tournament and a basketball tournament for athletes with cognitive disabilities are held
12	2004	Athens	19 Paralympic disciplines—unlike the previous edition, only the wheelchair basketball tournament is played
13	2008	Beijing	"One world, one dream", the same slogan as the Olympic Games
14	2012	London	The Paralympic Games "return home" after the parallel edition to the 1948 Olympic Games—a more numerous edition
15	2016	Rio de Janeiro	First Summer Paralympic to be held in a winter season—22 disciplines featured
16	2020	Tokyo	Disputed in 2021 due to the Covid-19 Pandemic

The Third Key Message

From the analysis of the previous paragraph, the recreational, educational, and inclusive value of sports clearly emerges. However, it should be specified that these specific psycho-social values are not intrinsic components of this activity but must be sought through appropriate organizational and methodological paths (Suits, 1988).

The transition from a sport played to a sport practiced must be educated through a practice based on significant and pleasant experiences built through positive emotions and a sense of self-efficacy rather than towards the achievement of a result. The terms play/game, sport, and sport education are the specific terms that are emergent in the third key message.

2.5. Choice of a Terminology Representative of the Italian Reality

Using a specific language specific to exercise and sports science allows the creation of a characterizing identity culture and the transmission of ideas, thoughts, and

reflections inherent in the subject matter most clearly and inclusively as possible.

To develop an identity language, terminology based only on a scientific domain is insufficient. Therefore, it becomes necessary to consider a vocabulary that includes subjective interpretation from the experience of the direct users of that specific practical application language.

Language describes reality and determines the reality that a community recognizes and legitimizes in a shared way.

A concrete experience in the field represents an essential element of ontological research in sports and exercise science education (Buccino et al., 2016).

The scientific paradigms and historical analysis of the previous paragraphs constitute the reflective basis of the identity culture of the practical community.

Figure 2 presents the principal terms characterizing the Italian reality emerging by the historical, philosophical, and paradigmatical road map evidenced in the previous paragraph.

The future steps toward which to move should turn to a qualitative study referring to the semantic actual interpretation of the terms considered in **Figure 2**.

3. Aims and Scope

As a first aim, we sought to understand the meaning and interpretative ideas (semantic analysis) currently attributed to a specific terminology by a practical community (physical education teachers).

A second aim of the present study is to compare the ideas of the physical education teachers' practical community with those of the teachers with different roles (Math, English, Informatics, etc.).

4. Materials and Methods

Data were collected via questionnaire (**Appendix**) as closed-ended questions online through a dedicated link to the Google form platform. The questionnaire compilation required 10 - 15 min. The terms chosen (gymnastics, physical education, psychomotricity, motor education, sport, play, sports education, motor sciences) have been selected considering historical, scientific paradigms, emerged in the previous background analysis and still current within the community of physical education practices.

All 193 questionnaires collected were entered into an Excel database for preliminary sample analysis.

From this preliminary analysis, all the participants were included in the study (30.7% male, 69.3% female).

Participants: Participants who answered the age question declared to have an age comprised between 18 - 29 years (5.8%), 30 - 39 years (19.0%), 40 - 49 years (19.0%), 50 - 59 years (34.9%), 60 - 69 years (20.6%), over 70 years (1.6%).

Since we did not want to deepen the semantic interpretation only in a particular school context, we decided to involve teachers working in different schools-tic institutes (elementary schools, middle schools, junior high schools, high schools, and universities).

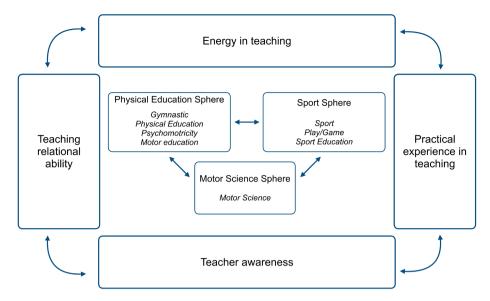


Figure 2. Inventory of terms emerged by philosophical-paradigmatic and historical excursus that consider human movement practical educative instruments.

The teachers involved in elementary school were 14.6%, 29.0% in middle school, 49.3% in junior and high school, and 7.0% in high schools.

Research Design: This research followed the cross-sectional study design. Only the teachers who answered "Physical education" to the question "Which discipline do you teach?" were included in the analysis of physical education teachers. Hence, 153 questionnaires were considered for this first investigation. 35.9% of participants were males, while 64% were females. The participants' ages were as follows: 3.9% between 18 and 29 years, 20.9% between 30 and 39, 15% between 40 and 49, 34.6% between 50 and 59, 23.5% between 60 and 69, and 2% over 70. 10.0% teach at elementary school, 28.6% at middle school, 55.1% at junior high school, and only 6.3% teach at university.

To assess differences in the proposed terms' interpretation between physical education teacher and teacher of other classes, the 40 questionnaires of teachers who do not teach physical education were analyzed. The sample was composed of 8.3% of males and 91.7% of females. The age range was distributed as follows: 13.9% between 18 and 29 years, 11.1% between 30 and 39 years, 36.1% between 40 and 49 years, and 8.3% between 60 and 69 years. No one of the participants declared to be over 70 years old. In this sample, 43.2% teach at primary school, 34.1% teach at secondary school, while only 13.6% and 9.1% teach at high school and university.

Measures: For the construction of the questionnaire, Fowler's guidelines were followed (Fowler, 2014). Therefore, the validated five-point Likert scale was used with reliability demonstrated in previous studies. Moreover, open-ended questions were avoided, and scales were chosen as close as possible to our constructs. All the answers were based on the individual interpretation of the proposed terms (Appendix).

Statistical Analysis. The answers were grouped into two macro groups for the statistical analysis. The answers "agree" and "completely agree" were grouped (agreement), and in the same way, "neutral," "disagree," and "completely disagree" were resumed in the same group (disagreement).

To determine the definition of each key term, the definition with higher agreement frequency (main definition) was compared with the other definitions using Cochran's Q test. Those not differing from the main definition and the semantic interpretation of the key terms were considered. The Chi-squared test was performed to compare the answers given by specialist teachers with those given by generalist teachers. The alfa value considered in all the analyses proposed was 0.05.

5. Results

Tables 3-5 display the main results of statistics and the outcomes of answers to the survey related to the first aim (related to physical education teachers).

Figures 3-5 display the main result of statistics and the outcomes of answers to the survey related to the second aim (related to physical education teachers Vs other school teachers).

6. Discussion

6.1. General Premise

This research analyzes the Italian problem related to the semantic interpretation attributed to some terms obtained through scientific/philosophical and historical analysis and still current within the community of physical education practice.

Table 3. Definitions of the selected key terms of the physical education sphere. The table shows the definition with a higher frequency of agreements and only the equivalent definitions without significant differences in agreement (p > 0.05).

Key term	Main definition (Higher frequency)	Equivalent definitions (Frequency)	<i>p</i> -value
Gymnastic	Organized through an ordered series of physical and motor exercises (134) Health education (143) Health education (143) Favouring the learning of other school classes (144) Motor development (144) Favouring brain development (128) Psycho-pedagogical discipline (117) Physical development (120) Sport education (123) Favouring the learning of other school classes (137) Favouring the learning of other school physical development (120) Sport education (123) Favouring health (134)	1.000	
		Health education (143)	1.000
Physical Education	Educative tool (146)	Favouring the learning of other school classes (144)	1.000
		Health education (143) Health education (143) Favouring the learning of other school classes (144) Motor development (144) Favouring brain development (128) Psycho-pedagogical discipline (117) Physical development (120) Sport education (123) 1.000 1.000	
D 1 (***	F 1 . 1	Favouring brain development (128)	1.000
Psychomotricity	Favouring motor development (136)	Health education (143) 1.000 Avouring the learning of other school classes (144) Motor development (144) Favouring brain development (128) Psycho-pedagogical discipline (117) Physical development (120) Sport education (123) Favouring health (134) 1.000	1.000
		Physical development (120)	0.803
M . 1	Favouring the learning of other school	Sport education (123)	1.000
Motor education	classes (137)	Favouring health (134)	1.000
		Play education (132)	1.000

Table 4. Definitions of the selected key terms of the sports sphere. The table shows the definition with a higher frequency of agreements and only the equivalent definitions without significant differences in agreement (p > 0.05).

Key term	Main definition (Higher frequency)	Equivalent definitions (Frequency)	<i>p</i> -value
		Psychological positive influence (144)	1.000
		Educative tool (144)	1.000
Sport	Physical and motor development (148)	Training (142)	1.000
	(110)	Socialization (141)	1.000
		Fun (140)	1.000
		Fun (147)	1.000
		Favouring psychological and cognitive development (146)	1.000
Play/game	Emotional involvement (147)	Psychological positive influence (144) Educative tool (144) Training (142) Socialization (141) Fun (140) Fun (147) Favouring psychological and cognitive development (146) tional involvement (147) Favouring the acquisition of rules and roles (143) Fantasy (143) Part of physical education (125) Positive for all personality areas (cognitive, social, affective) (136)	1.000
		Fantasy (143)	1.000
		Part of physical education (125)	0.184
_		Positive for all personality areas (cognitive, social, affective) (130)	1.000
Sport education	Social educative tool (132)	Sport (121)	1.000
caacation		Part of physical education (116)	0.316

Table 5. Definitions of the selected key terms of the motor science sphere. The table shows the definition with a higher frequency of agreements and only the equivalent definition without significant differences in agreement (p > 0.05).

Key term	Main definition (Higher frequency)	Equivalent definitions (Frequency)	<i>p</i> -value
Motor science	Scientific discipline (135)	Pedagogical discipline (109)	0.358

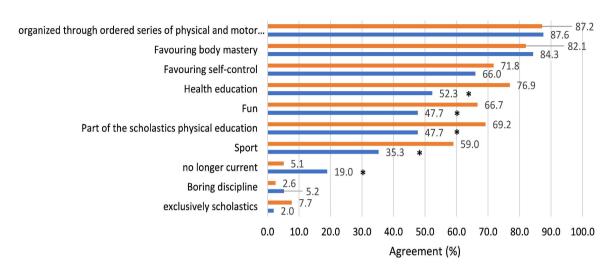
Although there are several physical education and sports dictionaries (Beyer, 1992; Haag, Mess, Haag, & von Johannes Hanke, 2012; Mumford, 2021) that examine and attribute precise meanings to the different terms that characterize the motor-sport field, to the best of our knowledge, there are no investigations that have shed light on the interpretation that the community of practice attributes, based on its own lived experience, to the different terms that characterize the specific application field. In this case, the Italian reality may represent an incipit for further investigations to be carried out in other countries.

This paper highlights the interpretive relevance attached to each term and intends to understand the different attributions of meaning concerning one's role and school experience through a comparison between subject specialists and teachers of unrelated subjects (generalists).

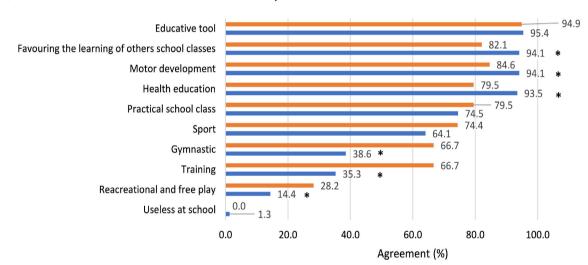
Referring to **Figure 2**, the results for the terms "gymnastics, physical education, psychomotricity, motor education" as they pertain to the sphere of physical education, the terms "sports, play, sports education" as they pertain to the sports sphere, will be analyzed in an integrated way.

The term motor science will be analyzed separately because it is not present in the specific international terminology, and it is not always suitable for a correct semantic interpretation based on a "practice of theory" that characterizes the field of physical education.

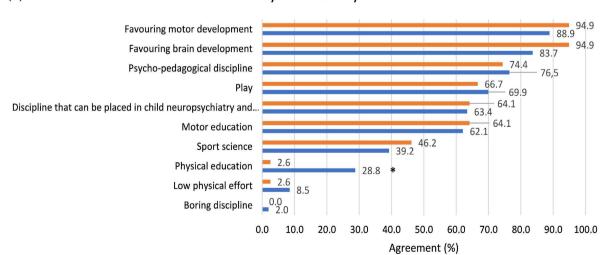




(b) Physical education







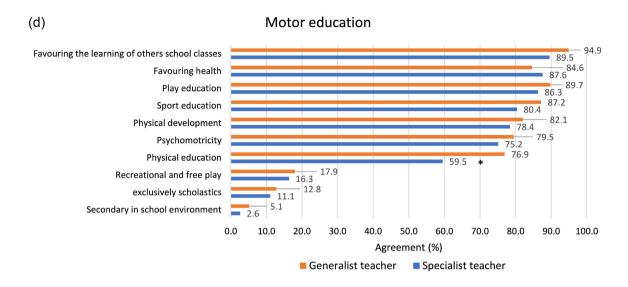
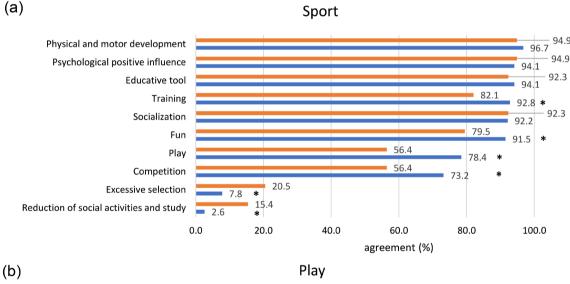
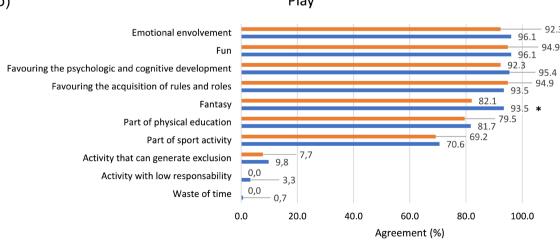


Figure 3. Frequency of agreement (percentual) with given definition. The agreement is obtained with the sum of "agree" and "totally agree" questionnaire answers. Graphs are referred to the terms: Gymnastic (a), Physical education (b), Psychomotricity (c), Motor education (d).





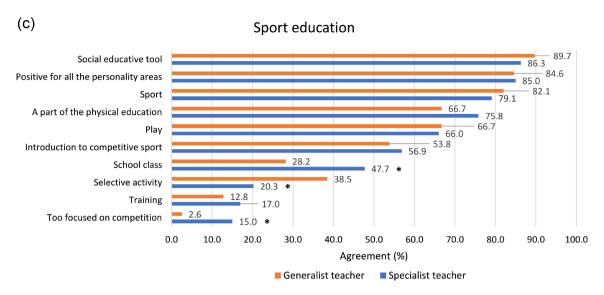


Figure 4. Frequency of agreement (percentual) with given definitions. The agreement is obtained with the sum of "agree" and "totally agree" answers to the questionnaire. Graphs are referred to the terms: Sport (a), play (b), and Sport education (c).

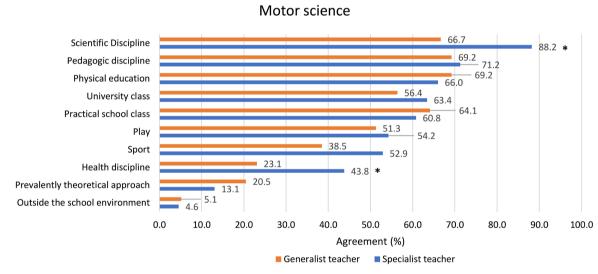


Figure 5. Frequency of agreement (percentual) with given definitions. The agreement is obtained with the sum of "agree" and "totally agree" answers to the questionnaire. Graphs are referred to term "motor science."

6.2. Specialists' Interpretative Semantic Relevance

6.2.1. Physical Education's Sphere

In the physical education sphere emerged both some interpretations based on education to movement (physical development, body mastery, motor development; related to sport and play/game education) and education through movement considering the psycho-pedagogical value of this sphere (Health education; favoring the learning of other school classes; favoring brain development). Moreover, other interpretations emerged are related to psychomotricity, which is considered as more relevant in brain development than the other terms analyzed. Moreover, physical education favors the learning of other school classes

and motor development, while motor education is mostly related to physical development and play and sports education development. Gymnastics is more similar to the physical education term, favoring body mastery.

6.2.2. Sports' Sphere

In the sports sphere, all the key terms have a positive educational semantic interpretation with physical/motor development (training and part of physical education value) and all personality areas (with psychological influence as an educative tool favoring emotion, fun, socialization, cognitive development, acquisition of rule, fantasy). Sports, sports education, and play are considered all part of physical education. Sports and sports education are interpreted as pleasant languages that must produce entertainment. Furthermore the most frequent semantic interpretations of sport do not identify it as an excessively selective activity unsuitable for a school environment.

6.2.3. Motor Sciences' Sphere

The motor science sphere is conceived prominently as a scientific discipline and pedagogical discipline; in this way, it should be noted that the term motor sciences is not adopted either at an academic level or in schools in the rest of the world where the term physical education and sport are a helpful term used in schools and colleges. The concept of pedagogical discipline probably emerges due to the use of the term motor science as a synonym for physical education. Indeed, in secondary school (junior high school) programs, it is used to define physical education.

6.3. Interpretative Semantic Comparison between Specialists and Generalists

6.3.1. Physical Education Sphere

As the sphere of physical education concerns, in the samples analyzed, there is a unanimous recognition of how "gymnastics, physical education, psychomotricity, motor education" are educational means with values in the general education and health fields. However, some differences between specialists and generalists are relevant.

Compared to specialists, generalists see gymnastics more than physical education as a form of health education; they interpret gymnastics, training, and free play/recreation as forms of physical education more prominently than specialists; assimilate to a greater extent, physical education to motor education. For generalists, psychomotricity is almost completely not considered a possible form of physical education.

Specialists, compared to generalists, consider gymnastics more as a discipline that is no longer current; physical education is more considered as a subject that can promote other scholastic learning and, to a greater extent, as a subject that promotes health education and motor development; physical education is less assimilated to motor education than generalists, perhaps because the current legislation that favors the inclusion of the specialist in primary school attributes

the term motor education to the subject taught by him, while the term physical education to the curricular subject taught by the generalist teacher.

Psychomotricity is considered more evidently by the specialist as physical education, in a conception of the psycho-somatic unity that characterizes the educational processes that are expressed through the body.

6.3.2. Physical Education's Literature Analysis

Concerning the literature analysis, it is highlighted how physical education presents the purpose, in a concept of service learning and physical literacy, to create all those elements based on skills and knowledge (the practice of theory; the combination of action and reflection based on the development of critical thinking related to body and movement), which are crucial for building an active and rewarding life (Auweele, Bakker, Biddle, Durand, & Seiler, 1999; Jacoby, 2014; M.I.U.R. Tuscany Regional school office, 2003; Whitehead, 2010).

The learning practical physical experience must integrate affective, social, and cognitive goals (Rink, 2010), emphasizing the need to educate the whole child according to his future, considering the concept of "quality of physical education" (Dyson, 2014) and reflective practice (Westbury, Hopmann, & Riquarts, 2012). These are the determining aspects, which in different forms emerge in the interpretations of generalists and specialists even if, in generalists, it is evident a poorer specific lexicon due to a lack of a specific regulatory and theoretical-practical background. This condition limits some transdisciplinary interpretative aspects of physical education, determining, in this group, an interpretation more direct to recreational and skills-trained value.

6.3.3. Sports' Sphere

Regarding the sports sphere, some confusion is evident. While specialists and generalists generally recognize it as having a positive value in the physical-psychological development of the individual and some assimilation to play as a factor that can produce emotional involvement and enjoyment, there are obvious contradictions in distinguishing between sports and sports education.

Compared with the specialists, the generalists attribute to sport a greater "reduction of social activities and of the time available for study" in young people, and to sports education, a higher frequency of responses addressed to "a selective activity."

Specialists, on the other hand, concerning sports education, recognize to a greater extent an identification with the formative processes of physical education and thus its scholastic value, but also an overly competition-focused activity in relation perhaps to an experience that still sees school sporting events related to "school sports groups" as the preserve of the best kids and that can give greater visibility and prominence to participating schools. From these data, it emerges that sport does not have an implicit educational effect in its nature but can be sought through adequate sports education aimed at promoting social inclusion, reducing inequalities, and not selection.

6.3.4. Sports Literature Analysis

In relation to the literature review, we point out how sport can foster some aspects of social inclusion (Bailey, 2008; Dukic, McDonald, & Spaaij, 2017) and understand how it can foster this inclusion with reduction of inequalities (Coalter, 2013; Lyras & Welty Peachey, 2011). Only through these analyses sport can move from a recreational and competitive dimension to an educational dimension.

Jeanes, Spaaij, Magee, and Kay (2018) highlight how sports can act only on some aspects of inclusion. Hermens, Super, Verkooijen, and Koelen (2015) highlight how sports can promote life skills by accentuating the attention on how the proposed program and, above all, "the which" is created are the essential elements for sport to perform an educational function.

Inclusion, reduction of inequalities, and critical thinking are elements key to the social-educational future of Italian school sports in harmony with the goals of physical education.

6.3.5. Motor Sciences' Sphere

As concerns the sphere of motor sciences, both samples (generalist and specialist) assimilate this discipline to physical education in some way, but there is a substantial difference between specialists and generalists. In particular, specialists consider this discipline more part of a sanitary/clinical sector and attribute it a predominantly scientific/theoretical and less practical consideration.

6.3.6. Motor Sciences' Literature Analysis

Consistent with the literature, this term is used to refer to a field of investigation in which movement and physical and motor activity are interpreted as intellectual activities, and the discipline is analyzed in a multidisciplinary key of several applied sciences (American Academy of Physical Education, 1990) which often, if not translated into an applicative synthesis, they find little applicability in the concrete experience of the field and of the gymnasium (Bishop, 2008).

6.3.7. The Fourth Key Message

Physical and sports education should be valued as a practice of theory, increasing its qualitative and quantitative hours of practical teaching, not attributing to it the term "motor sciences" in a mistaken attempt to give it greater cultural value to "intellectualize" it on a par with other school subjects. It would be attributed a false identity of a scientific-health type that detaches it from its cultural matrix centered on a body and mind educated through movement, which are true elements of a transdisciplinary nature favoring transversality with other school learning and its real usefulness in life.

7. Conclusion

7.1. Synthesis

Within a scientific-philosophical and historical perspective and thanks to a qualitative methodology, the presented research tried to explore the depth and com-

plexity of the semantic interpretations referring to the physical and sports education plans in relation to the specific institutional roles to which they belong (physical education specialists; generalist teachers of other subjects) and with the socio-cultural interpretative context of educational institutions.

The work represents an attempt to outline some elements capable of providing a hypothesis of reading and understanding of the educational role of the body and of sport in the school reality, which does not always recognize the usefulness of its institutional.

Such information from a practical-application point of view is an interesting test of the value of a discipline that does not crystallize its meaning exclusively in mere instructional/disciplinary content but can be attributed to a real formative value, a guarantee of a good relationship and sharing of goals with colleagues and school leaders and a school culture felt as its own.

The emerging results highlight the importance of semantic research as a practical tool for intervening in situations where the meaning of a term does not reflect its educational value.

In particular, concerning the results of this study and the reference literature, we believe that a clear and unambiguous semantics orientation of physical and sports education towards the values of inclusion, reduction of inequalities, and critical thinking are determinants for the quality of future physical education. Furthermore, the school's service learning must ensure not only good academic or sportive success but also a whole and rewarding life.

7.2. Practical Applications

In our opinion, given the interpretative ambiguity that emerges in some cases, is necessary to clarify the precise educational, didactic meaning of the terms characterizing the practice of physical education and sport education.

This confusion also reflects the diversity of language of pedagogical model that in literature describe the practice of physical education and sport education and shape the vocabulary of physical education and Sport.

These data and reflections highlight the need for national and international academic training. In addition to specific academic content, this training should generate an in-depth study of the ontological reference level essential to a greater understanding of the discipline. The way one interprets and sees a specific term impact on the way the term is "used" in a practical application.

Questionnaire is considered an attempt to capture the practical pedagogy with the aim of focusing on specific and relevant problems that need to be analyzed and corrected (i.e., the interpretation of sports education as an element of selection).

We believe that to some extent, physical education research and practice must see words, and intervention models referred to these words, in an integrated way (Metzler, 2011).

Words describe specific significant referring to intervention models (such as sport education, psychomotricity, motor education...). The practical application of these models assumes a specific and characteristic meaning identified by a

dedicated word. An absence of a correspondence between words and intervention models could generate misunderstanding on the didactic and methodological plan (Casey, MacPhail, Larsson, & Quennerstedt, 2020).

7.3. Limits and Future Investigations

The questionnaire was administered to a limited typology of stakeholders. Further investigations should consider analysis referred to the semantic interpretation of considered terms in parents, school leaders, and students populations. Moreover, a comparison between teachers which utilise different teaching styles could give other interesting insights.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

American Academy of Physical Education (1990). Resolution on Kinesiology. In *Academy Papers (23)* (p. 104). Human Kinetics.

Auweele, Y. V., Bakker, F. C., Biddle, S. J. H., Durand, M., & Seiler, R. (1999). *Psychology for Physical Educators*. Human Kinetics.

Baena-Morales, S., Jerez-Mayorga, D., Delgado-Floody, P., & Martínez-Martínez, J. (2021). Sustainable Development Goals and Physical Education. A Proposal for Practice-Based Models. *International Journal of Environmental Research and Public Health*, 18, Article No. 2129. https://doi.org/10.3390/ijerph18042129

Bailey, R. (2008). Youth Sport and Social Inclusion. In N. L. Holt (Ed.), *Positive Youth Development through Sport* (2nd ed., p. 2129). Routledge.

Baumann, E. (1873). Psico-cinesia ovvero l'arte di formare il carattere. Presso l'autore.

Baumann, E. (1913). *Psicocinesia, ovvero, L'educazione dello spirito mediante quella del corpo*. Presso l'autore.

Baumeister, R. F. (2011). Self and Identity: A Brief Overview of What They Are, What They Do, and How They Work. *Annals of the New York Academy of Sciences, 1234*, 48-55. https://doi.org/10.1111/j.1749-6632.2011.06224.x

Beyer, E. (1992). Dictionary of Sport Science. Karl Hofmann.

Bishop, D. (2008). An Applied Research Model for the Sport Sciences. *Sports Medicine*, *38*, 253-263. https://doi.org/10.2165/00007256-200838030-00005

Bonhoeffer, D. (1983). Che cosa significa dire la verità? In *Etica* (pp. 308-314). Bompiani. Boni, O. (1962). *La motricità educativa* (Vol. 2). CSEF.

Buccino, G., Colagè, I., Gobbi, N., & Bonaccorso, G. (2016). Grounding Meaning in Experience: A Broad Perspective on Embodied Language. *Neuroscience and Biobehavioral Reviews*, 69, 69-78. https://doi.org/10.1016/j.neubiorev.2016.07.033

C.M. 3/10 n. 274 (1985). Attività sportiva scolastica nell'anno scolastico 1985/86. (prot. 1860/B).

C.M. 8/11 n. 304 (1983). Attività sportiva scolastica nell'anno 1983/84. (prot. 2388/B).

Casey, A., MacPhail, A., Larsson, H., & Quennerstedt, M. (2020). Between Hope and Happening: Problematizing the M and the P in Models-Based Practice. *Physical Education and Sport Pedagogy*, 26, 111-122. https://doi.org/10.1080/17408989.2020.1789576

- Coalter, F. (2013). Realising the Potential of Cultural Services: The Case of Sport. Pga Publications.
- Commission of the European Communities (2007). *White Paper on Sport.* (COM(2007) 391 final).
- Cziko, G. A. (1989). Unpredictability and Indeterminism in Human Behavior: Arguments and Implications for Educational Research. *Educational Researcher*, *18*, 17-25. https://doi.org/10.2307/1174887
- D.I. 7/10 n. 211 (2010). Schema di regolamento recante «Indicazioni nazionali riguardanti gli obiettivi specifici di apprendimento concernenti le attivita' e gli insegnamenti compresi nei piani degli studi previsti per i percorsi liceali di cui all'articolo 10, comma 3, del decreto del Presidente della Repubblica 15 marzo 2010, n. 89, in relazione all'articolo 2, commi 1 e 3, del medesimo regolamento.». (GU n.291).
- D.Lgs. n. 165 (2001). Norme generali sull'ordinamento del lavoro alle dipendenze delle amministrazioni pubbliche. (GU n.106).
- D.M. 16/11 n. 254 (2012). Regolamento recante indicazioni nazionali per il curricolo della scuola dell'infanzia e del primo ciclo d'istruzione, a norma dell'articolo 1, comma 4, del decreto del Presidente della Repubblica 20 marzo 2009, n. 89. (GU n.30).
- D.M. 851 (2018). Avviso progetti innovativi.
- D.M. 9/2 (1979). Programmi, orari di insegnamento e prove di esame per la scuola media statale. (GU n.50).
- D.P.R. 1/10 n. 908 (1982). Nuovi programmi d'insegnamento di educazione fisica negli istituti di istruzione secondaria superiore, nei licei artistici e negli istituti d'arte.
- D.P.R. 10/9 n. 647 (1969). Orientamenti dell'attività educativa nelle Scuole Materne Statali.
- D.P.R. 12/2 n. 104 (1985). Approvazione dei nuovi programmi didattici per la scuola primaria. (GU n.76).
- D.P.R. 31/5 n. 416 (1974). *Istituzione e riordinamento di organi collegiali della scuola materna, elementare, secondaria ed artistica*. (GU n.239).
- D.P.R. 5/3 n. 52 (2013). Regolamento di organizzazione dei percorsi della sezione ad indirizzo sportivo del sistema dei licei, a norma dell'articolo 3, comma 2, del decreto del Presidente della Repubblica 15 marzo 2010, n. 89. (GU n.113).
- D.P.R. 8/3 n. 275 (1999). Regolamento recante norme in materia di autonomia delle istituzioni scolastiche, ai sensi dell'art. 21 della L. 15 marzo 1997, n. 59. (GU n.186).
- Di Donato, M. (1984). Storia dell'educazione fisica e sportiva. Edizioni stadium.
- Dukic, D., McDonald, B., & Spaaij, R. (2017). Being Able to Play: Experiences of Social Inclusion and Exclusion within a Football Team of People Seeking Asylum. Social Inclusion, 5, 101-110. https://doi.org/10.17645/si.v5i2.892
- Durden-Myers, E. J., Whitehead, M. E., & Pot, N. (2018). Physical Literacy and Human Flourishing. *Journal of Teaching in Physical Education*, *37*, 308-311. https://doi.org/10.1123/jtpe.2018-0132
- Dyson, B. (2014). Quality Physical Education: A Commentary on Effective Physical Education Teaching. *Research Quarterly for Exercise and Sport, 85*, 144-152. https://doi.org/10.1080/02701367.2014.904155
- Ellis, H. (2014). Thomas Arnold, Christian Manliness and the Problem of Boyhood. *Journal of Victorian Culture, 19*, 425-441. https://doi.org/10.1080/13555502.2014.969975
- Enrile, E. (1962). Istituzione e ordinamento della scuola media statale. (Legge 31/12 No.

- 1859, GU n.27).
- European Council (2018). Raccomandazione del Consiglio del 22 maggio 2018 relativa alle competenze chiave per l'apprendimento permanente (Testo rilevante ai fini del SEE) (2018/C 189/01).
- Fowler, F. J. (2014). Survey Research Methods. SAGE Publications.
- Frasca, R. (1979). L'educazione fisica e lo sport. Da Filangieri ai nostri giorni. Solfanelli.
- Galliani, L., Petrucco, C., & Dal Bon, C. (2004). *EduOnto: Actors, Processes, Technologies: An Ontology on Educational Acting.* Paper Presented at the Open Learning and Distance Education, Lifelong Learning in the Networked World, Hong-Kong.
- Gori, M. (1982). L'educazione fisica contemporanea. Società Stampa Sportiva.
- Gregory, R. L. (2001). Perceptions of Knowledge. *Nature*, *410*, 21-21. https://doi.org/10.1038/35065174
- Grifi, G. (1989). Ginnastica—Storia dell'educazione fisica e dello sport. Barain Edizioni.
- Haag, H., Mess, F., Haag, G., & von Johannes Hanke, M. (2012). *Dictionary. Sport, Physical Education, Sport Science*. Logos Verlag Berlin GmbH.
- Hameroff, S., & Penrose, R. (2014). Consciousness in the Universe: A Review of the "Orch OR" Theory. *Physics of Life Reviews*, *11*, 39-78. https://doi.org/10.1016/j.plrev.2013.08.002
- Hermens, N., Super, S., Verkooijen, K., & Koelen, M. (2015). Intersectoral Action to Enhance the Social Inclusion of Socially Vulnerable Youth through Sport: An Exploration of the Elements of Successful Partnerships between Youth Work Organisations and Local Sports Clubs. *Social Inclusion*, *3*, 98-107. https://doi.org/10.17645/si.v3i3.139
- Hodgson, D. (2002). Quantum Physics, Consciousness, and Free Will. In R. H. Kane (Ed.), *The Oxford Handbook of Free Will* (pp. 84-100). Oxford University Press.
- Jacoby, B. (2014). Service-Learning Essentials: Questions, Answers, and Lessons Learned. Jossey-Bass.
- Jeanes, R., Spaaij, R., Magee, J., & Kay, T. (2018). SDP and Social Exclusion. In H. Collison, S. C. Darnell, R. Giulianotti, & P. D. Howe (Eds.), *Routledge Handbook of Sport for Development and Peace* (pp. 152-162). Routledge. https://doi.org/10.4324/9781315455174-14
- John, H. (1989). Kindgerechte Angebote. In Beispielen Anfängerschwimmen (pp. S.175). Grundausbildung. Bd2.
- Karssiens, A. E. A., van der Linden, C., Wilderom, C. P. M., & Furtmueller, E. (2014). Embodied Mind Knowledge in Leadership Practice: Creating Space in Patterned Thoughts and Behaviors. *Journal of Management Inquiry, 23,* 231-241. https://doi.org/10.1177/1056492613513501
- LaBar, K. S., & Cabeza, R. (2006). Cognitive Neuroscience of Emotional Memory. *Nature Reviews: Neuroscience*, *7*, 54-64. https://doi.org/10.1038/nrn1825
- Law 13 July n. 107 (2015). Riforma del sistema nazionale di istruzione e formazione e delega per il riordino delle disposizioni legislative vigenti. (GU n.162).
- Law 15 March n. 59 (1997). Delega al Governo per il conferimento di funzioni e compiti alle regioni ed enti locali, per la riforma della Pubblica Amministrazione e per la semplificazione amministrativa. (GU n.63).
- Law 16/2 n. 426 (1942). Costituzione e ordinamento dl Comitato Olimpico Nazionale Italiano (C.O.N.I.). (GU n.112).
- Law 28 March n. 53 (2003). Delega al Governo per la definizione delle norme generali sull'istruzione e dei livelli essenziali delle prestazioni in materia di istruzione e forma-

- zione professionale. (GU n.77).
- Law 29 December n. 197 (2022). *Bilancio di previsione dello Stato per l'anno finanziario 2023 e bilancio pluriennale per il triennio 2023-2025.* (GU n303).
- Leontiev, D. A. (2013). Personal Meaning: A Challenge for Psychology. *The Journal of Positive Psychology*, *8*, 459-470. https://doi.org/10.1080/17439760.2013.830767
- Loprinzi, P. D., Frith, E., & Edwards, M. K. (2019). Exercise and Emotional Memory: A Systematic Review. *Journal of Cognitive Enhancement, 3*, 94-103. https://doi.org/10.1007/s41465-018-0086-z
- Lyras, A., & Welty Peachey, J. (2011). Integrating Sport-for-Development Theory and Praxis. *Sport Management Review, 14*, 311-326. https://doi.org/10.1016/j.smr.2011.05.006
- M.I.U.R. Tuscany Regional School Office (2003). *Formazione, Educazione Motoria e Sportiva. Conoscenze, abilità motorie e sportive*. I.P.S.S.C-T.O. "F. Datini".
- Mariani, C., & Torrengo, G. (2021). The Indeterminate Present and the Open Future. Synthese: An International Journal for Epistemology, Methodology and Philosophy of Science, 199, 3923-3944. https://doi.org/10.1007/s11229-020-02963-y
- Materia, E., & Baglio, G. (2005). Health, Science, and Complexity. *Journal of Epidemiology and Community Health*, *59*, 534-535. https://doi.org/10.1136/jech.2004.030619
- Merkel, D. L. (2013). Youth Sport: Positive and Negative Impact on Young Athletes. *The Open Access Journal of Sports Medicine*, *4*, 151-160. https://doi.org/10.2147/OAJSM.S33556
- Metzler, M. (2011). Instructional Models in Physical Education. Routledge.
- MIUR (2009). Linee guida per le attività di educazione fisica, motoria e sportiva nelle scuole secondarie di primo e secondo grado. (Prot. 4273).
- Morin, E. (2000). La testa ben fatta. Riforma dell'insegnamento e riforma del pensiero. Cortina.
- Moro, A. (1958). Provvedimenti per l'Educazione fisica. (Legge 7/2 No. 88, GU n.57).
- Mumford, S. (2021). *A Philosopher Looks at Sport*. Cambridge University Press. https://doi.org/10.1017/9781108992961
- Opstoel, K., Chapelle, L., Prins, F. J., De Meester, A., Haerens, L., van Tartwijk, J., & De Martelaer, K. (2020). Personal and Social Development in Physical Education and Sports: A Review Study. *European Physical Education Review*, *26*, 797-813. https://doi.org/10.1177/1356336X19882054
- Pasterniak, W., & Cynarski, W. J. (2014). Quantum Physics and Sports Training. The Possibility of Using the Achievements of Quantum Physics in Football. *Journal of Martial Arts Anthropology*, 14, 54–61.
- Pennebaker, J. W., Mehl, M. R., & Niederhoffer, K. G. (2003). Psychological Aspects of Natural Language Use: Our Words, Our Selves. *Annual Review of Psychology, 54*, 547-577. https://doi.org/10.1146/annurev.psych.54.101601.145041
- Rescher, N. (1991). G. W. Leibniz's Monadology. University of Pittsburgh Press.
- Rink, J. (2010). Teaching Physical Education for Learning. McGraw-Hill.
- Smith, J. (2020). Self-Consciousness. In E. N. Zalta (Ed.), *The Stanford Encyclopedia of Philosophy* (Summer 2020 Edition ed.). Metaphysics Research Lab, Stanford University.
- Snowden, J. S., Griffiths, H. L., & Neary, D. (1995). Autobiographical Experience and Word Meaning. *Memory*, *3*, 225-246. https://doi.org/10.1080/09658219508253152
- Sturgeon, J. A., & Zautra, A. J. (2016). Social Pain and Physical Pain: Shared Paths to Resilience. *Pain Management, 6,* 63-74. https://doi.org/10.2217/pmt.15.56

- Suits, B. (1988). Tricky Triad: Games, Play, and Sport. *Journal of the Philosophy of Sport, 15,* 1-9. https://doi.org/10.1080/00948705.1988.9714457
- Ulmann, J. (1968). *Ginnastica, educazione fisica e sport. Dall'antichità ad oggi.* Armando Editore.
- Valletti, F. (1893). Storia della ginnastica. Hoepli.
- Varela, F., Thompson, E., & Rosch, E. (2017). *The Embodied Mind. Cognitive Science and Human Experience* (Revised Edition ed.). The MIT Press. https://doi.org/10.7551/mitpress/9780262529365.001.0001
- Varzi, A. C. (2005). Ontologia. GLF Editori Laterza.
- Virno, V. (1951). Relazione. In The Congresso Nazionale A.N.E.F.
- Wenger, E. (2006). Apprendimento, significato e identità. Raffaello Cortina Editore.
- Westbury, I., Hopmann, S., & Riquarts, K. (2012). *Teaching as a Reflective Practice: The German Didaktik Tradition.* Routledge. https://doi.org/10.4324/9780203357781
- Whitehead, M. (2010). *Physical Literacy: Throughout the Life Course*. Taylor & Francis. https://doi.org/10.4324/9780203881903
- WHO Regional Office for Europe (2022). Systems Thinking for Noncommunicable Disease Prevention Policy: Guidance to Bring Systems Approaches into Practice.
- Yorks, L., & Kasl, E. (2002). Toward a Theory and Practice for Whole-Person Learning: Reconceptualizing Experience and the Role of Affect. *Adult Education Quarterly*, *52*, 176-192. https://doi.org/10.1177/07417136020523002

Appendix: Questionnaire for Teachers' Interpretation of Terms Used in Motor Sciences, Physical Education, and Sport

Research on the interpretation of terminology in the fields of Motor Sciences, Physical Education, and Sport

PERSONAL DA	IA			
1. Sex	M F Other	2. Age	_	
3. Degr	ree		4. Lengt	h of service
	Primary school diploma			0-5 years
	Middle School diploma			10-15 years
	High school graduation			15 - 25 years
	Degree			25 - 30 years
	Postgraduate			> 30 years
5. Type	of school or institution w	here you work	6. Role	within the school complex
	Classical High School			Principal
	Scientific high school			Role teacher
	Linguistic high school			Support teacher
	Technical or vocational so	hool		Substitute
	Psycho-pedagogical insti	tute		
	Primary School			
	Lower secondary school			
Othe	r			
7. Role i	n sports fields			
	Instructor			
	Youth coach			
	High-level coach			
	Trainer			
	No role			
Other _				
6. Discipline tau	ıght			

The terms that we will consider in this questionnaire as an object of semantic interpretation will be the following:

Sport
Physical education
Gymnastics
Game
Motor Sciences
Physical education
Psychomotricity
Sports Education

For each meaning proposed, in relation to each term, put a cross on the box relating to the numbers that best reflect your opinion, using the following scale of values. In the free boxes, you can enter further meanings which, in your opinion, better characterize the term in question.

1	2	3	4	5
I do not at all agree	Disagree	Neutral	Agree	Very much agree

1. SPORT IS:

1.	competition	1	2	3	4	5
2.	fun	1	2	3	4	5
3.	game	1	2	3	4	5
4.	socialization	1	2	3	4	5
5.	excessive selection	1	2	3	4	5
6.	reduction of other social activities and willingness to study	1	2	3	4	5
7.	training	1	2	3	4	5
8.	means of education	1	2	3	4	5
9.	positive influence on the psyche	1	2	3	4	5
10.	physical-motor development	1	2	3	4	5
11.	OTHER:	1	2	3	4	5
12.	OTHER:	1	2	3	4	5

2. PHYSICAL EDUCATION IS:

1.	motor development	1	2	3	4	5
2.	means of education	1	2	3	4	5
3.	discipline that can promote the learning of other school subjects	1	2	3	4	5
4.	practical school subject	1	2	3	4	5
5.	free play and recreation	1	2	3	4	5
6.	health education	1	2	3	4	5
7.	sport	1	2	3	4	5
8.	not very useful in school	1	2	3	4	5
9.	gymnastics	1	2	3	4	5
10.	training	1	2	3	4	5
11.	OTHER:	1	2	3	4	5
12.	OTHER:	1	2	3	4	5

3. GYMNASTICS IS:

1.	form of school physical education	1	2	3	4	5
2.	health education	1	2	3	4	5
3.	discipline no longer current	1	2	3	4	5
4.	fun	1	2	3	4	5
5.	discipline that promotes bodily mastery	1	2	3	4	5
6.	activity organized through an ordered series of physical and motor	1	2	3	4	5
	exercises					
7.	sport	1	2	3	4	5
8.	exclusively scholastic discipline	1	2	3	4	5
9.	discipline that promotes self-control	1	2	3	4	5
10.	boring discipline	1	2	3	4	5
11.	OTHER:	1	2	3	4	5
12.	OTHER:	1	2	3	4	5

4. THE GAME IS:

1.	fantasy	1	2	3	4	5
2.	fun	1	2	3	4	5
3.	emotional involvement	1	2	3	4	5
4.	waste of time	1	2	3	4	5
5.	activity that favors the acquisition of rules and roles	1	2	3	4	5
6.	form of physical education	1	2	3	4	5
7.	form of sport	1	2	3	4	5
8.	activity that promotes psychological and cognitive development	1	2	3	4	5
9.	activities with a low degree of responsibility	1	2	3	4	5
10.	activity that may lead to exclusion	1	2	3	4	5
11.	OTHER:	1	2	3	4	5
12.	OTHER:	1	2	3	4	5

5. MOTOR SCIENCES ARE:

1.	physical education	1	2	3	4	5
2.	game	1	2	3	4	5
3.	scientific discipline	1	2	3	4	5
4.	practical school discipline	1	2	3	4	5
5.	with a predominantly theoretical approach	1	2	3	4	5
6.	sport	1	2	3	4	5
7.	discipline unsuitable for a school setting	1	2	3	4	5
8.	university study course	1	2	3	4	5
9.	healthcare discipline	1	2	3	4	5
10.	pedagogical discipline	1	2	3	4	5
11.	OTHER:	1	2	3	4	5
12.	OTHER:	1	2	3	4	5

6. MOTOR EDUCATION IS:

1.	Physical education	1	2	3	4	5
2.	exclusively scholastic subject	1	2	3	4	5
3.	free play and recreation	1	2	3	4	5
4.	discipline that promotes health	1	2	3	4	5
5.	secondary school discipline	1	2	3	4	5
6.	discipline that can promote the learning of other school subjects	1	2	3	4	5
7.	play education	1	2	3	4	5
8.	sports education	1	2	3	4	5
9.	psychomotricity	1	2	3	4	5
10.	physical development	1	2	3	4	5
11.	OTHER:	1	2	3	4	5
12.	OTHER:	1	2	3	4	5

7. PSYCHOMOTRICITY IS:

1.	physical education	1	2	3	4	5
2.	motor education	1	2	3	4	5
3.	game	1	2	3	4	5
4.	practical discipline that favors the development of the mind	1	2	3	4	5
5.	discipline that promotes motor control	1	2	3	4	5
6.	motor sciences	1	2	3	4	5
7.	psycho-pedagogical discipline	1	2	3	4	5
8.	discipline that can be placed in child neuropsychiatry and learning	1	2	3	4	5
	disorders					
9.	boring	1	2	3	4	5
10.	discipline that is not physically demanding	1	2	3	4	5
11.	OTHER:	1	2	3	4	5
12.	OTHER:	1	2	3	4	5

8. SPORTS EDUCATION IS:

1.	sport	1	2	3	4	5
2.	school discipline	1	2	3	4	5
3.	introduction to competitive sport	1	2	3	4	5
4.	training	1	2	3	4	5
5.	positive for all areas of the personality (cognitive, social, affective)	1	2	3	4	5
6.	educational and social tool	1	2	3	4	5
7.	form of physical education	1	2	3	4	5
8.	game	1	2	3	4	5
9.	selective	1	2	3	4	5
10.	excessively focused on competition	1	2	3	4	5
11.	OTHER:	1	2	3	4	5
12.	OTHER:	1	2	3	4	5