

Body, movement, and outdoor education in pre-school during the COVID-19 pandemic: perceptions of teachers

TIZIANA D'ISANTO¹, FRANCESCA D'ELIA²
^{1,2}University of Salerno, ITALY

Published online: February 28, 2021
(Accepted for publication February 22, 2021)
DOI:10.7752/jpes.2021.s1087

Abstract

The Italian preschool has a peculiar teaching structure that is based on five fields of experience and teachers must guarantee experiential teaching based on the body and movement. So physical activities and sensorimotor experiences should be particularly encouraged as they represent the main way of approaching the phenomena in this stage of development. This study aims to detect the opinions of pre-school teachers in order to calibrate the contents and objectives of the permanent training, through a qualitative survey carried out by submitting to preschool teachers specific questionnaires through the Google Modules platform. The questionnaire is composed by 28 questions related to: demographic data (1-5), practice of indoor and outdoor physical activity (6-14), safety during the practice of motor activity (15-18), the future practice or possibility of practicing outdoor lessons (19-23), on the psychological impact due to social distancing / closure of gyms (24-26) and on the perception of the importance of physical and motor activity during covid-19 (27-28). The data collected on the perception of teachers with regard to the body and movement field of experience and the adaptations for outdoor motor practice reveal specific training needs in the context of the teaching methods of physical education and the need to provide training actions also outdoor activities, in particular it emerges that with proper permanent training on children's movement and learning during outdoor free play and including more natural features in the design of outdoor play areas, it could encourage teachers to do more outdoor movement education improving children's body and movement awareness.

Keywords: field of experience; permanent training; education

Introduction

In Italy tenured teachers are required to carry out compulsory, permanent and structural training activities as prescribed by Law no. 107/2015 in paragraph 124; this training activity is complex in itself as it must be designed in accordance with the three-year plan of the training offer, with the results emerging from the school improvement plans, based on the priorities indicated in the *National Training Plan*. This *Plan* is adopted every three years by decree of the Minister of Education, University and Research, after consultation with the trade union organizations representing the category.

Before being a duty imposed by the law, permanent training is a moral duty for teachers, due to the constant need for training and professional updating, with a view to lifelong learning and lifewide learning, and because of the initial training differences found among teachers. In fact, the Italian pre-school has a teaching staff that has a mixed cultural background, made up of teachers that, for the most, have a "primary school teaching certificate" that correspond to an high school diploma, while a minority component has a master's degree in primary education sciences: this is one of the aspects to consider when designing the courses to be addressed to teachers in service. Another aspect to consider is the teaching structure of Italian pre-school, that is based on the experience fields of 1991 updated following the reforms that have taken place over the years (Raiola 2011) and which have stabilized in the national indications of the curriculum for the first cycle of education and pre-school (MIUR, 2012). Moreover, from an organizational point of view, pre-school system is different from the primary and secondary school system.

For the whole week teachers work mostly alone, the co-presence is provided only during the lunches. Therefore pre-school teachers are committed to the full implementation of the national indications for curriculum with all the contents of the five "fields of experience", which aim are to provide children with opportunities to develop their skills. In particular, physical activities and sensorimotor experiences represent the main way of approaching the phenomena during childhood, so body and movement field of experience should be particularly encouraged making teaching and learning processes more active. Considering the teaching structure of Italian preschool and the centrality of the body and movement in the children's experience teachers should be supported to work on all types of movement education. This is an exploratory study aimed at bringing out the perceptions of teachers about physical activities and its importance in teaching/learning processes during childhood and at

receiving their training needs in order to adequately design the compulsory permanent training. A previous study has been realized on teachers' perspectives about contents and learning aim of physical education in Italian primary school (D'Elia, 2020) and it brought out that despite a well-defined profile of PE in primary school and the enhancement of its educational values, interventions and investments in favour of PE and sport made, from the perceptions of the teachers emerge some discrepancies between what is declared and expected and what is actually achieved. In particular, teacher training should be reviewed and school organizational issues about PE taught time and facilities should be realistically analyzed to highlight the difficulties that teachers encounter and which often prevent the development of the part of the curriculum dedicated to physical education. So a reconsideration of training courses for general teachers is necessary and the promotion of a broader vision of the PE must be encouraged to underline the effects on physical, emotional, cognitive, social, health and wellbeing development. It would be useful also to encourage more general teachers to engage a more collaborative approach that take into account the contribution of PE and of the PE expert to the whole educational process. As studies on the the perceptions of preschool teachers about physical activities are lacking and it emerges the need too design the compulsory training also as indoor and outdoor movement education training, the objective of this study is to detect the expressed opinions about physical activity by pre-school teachers. The goal is to investigate about the perception data in order to promote teaching methods of practice activity on Movement and Body field of experience (Raiola, 2017, Di Domenico et al., 2019 ab, D'Elia et al. 2020) at public pre-school moreover on outdoor education. The purpose is also to formulate useful proposals in the university courses of initial training of teachers.

Specifically, they have been investigated the levels of physical activity achieved by the teachers, the impact that the current contingencies due to Covid19 are determining on the quantity and quality of physical activities carried out, as well as the value that the teachers attribute to outdoor physical experiences for the achievement of the goals expected at the end of pre-school, so as to deduce the training needs of teachers and design training courses that meet these needs and are capable to support and to innovate teaching in preschool, expanding the range of experiences to be offered to children from 2.5-3 to 6 years.

The specific objectives are to investigate:

- Teacher's levels practice of physical and motor activity indoors and outdoors
- The impact of pandemic on teacher's quality/quantity of PA
- The importance of PA in pre-school
- The teacher's training need

Materials and methods

Method is cluster analysis with administration of questionnaire. The present study is an introduction analysis conducted investigating an homogeneous group of people to explore the field of early childhood movement education, in particular outdoor education, from the perspective of the teachers. The group considered in this study is composed by pre-school teachers that teach in Naples preschools (south Italy). This preliminary investigation aims to define the contents and activities of the compulsory training activities in service that effectively meet the needs of pre-school teachers in the field of body and movement also to encourage a more active and experiential teaching as expected by the National guidelines for the curriculum (2012).

A sample of 42 pre-school teachers (97,6% female) working in schools in the Campania Region took part in the study with an average age of 51,7.

Particular attention has been paid to the specific difficulties that teachers encounter in carrying out physical activities (both indoor and outdoor) in local situations, which in addition to the personal perspectives of the teachers are linked to socio-economic conditions, local policies, geographical position, ecc. Campania for example is a very populous region that has a heterogeneous distribution of the population and cities, like Naples, having a very high concentration of resident with a consequent limitation in the availability of both indoor and outdoor spaces that affect the quality and quantity of physical activity.

A structured questionnaire was prepared with Google Forms and disseminated by e-mail.

The questionnaire was composed by 28 questions divided into the following sections:

- Demographic and anthropometric data
- Physical activity indoor and outdoor
- Practice (current and future) of outdoor lessons
- Impact on PA due to social distancing and limitation of activities
- Perception of the importance of physical and motor activity during covid-19

Descriptive statistics were used to calculate the variables expressed as a percentage.

Results

The results show how active are teachers, where they practice, how the pandemic and the smart configuration of life affected their lifestyles, what are their perceptions and perspectives about outdoor movement education and its importance for the achievement of children development goal (Table 1) and some issues were common with other studies (McClintic, 2015, Tsangaridou, 2017).

How active are you?	23,8% practice regular physical activity according to the WHO Recommendation, 50% practice some physical activity but don't meet the WHO Recommendation; 26,2% are sedentary.
Where do you practice?	63,6% INDOOR 36,4% OUTDOOR
How easy it is to reach the sports facilities indoor and outdoor? How much the pandemic has affected the quantity and quality of physical activity?	97,6% Indoor 57,1% Outdoor 17,1% had no effect 82,9% had effect (48,8% have moderately reduced their activities, 34,1% have seriously reduced their activities)
With "smart" working do you have more free time to do physical activity?	28,6% Yes 71,4% No
Do you think that the practice of physical activity can have beneficial effects against COVID19?	70,7% Yes 29,3% No
During pandemic you think it is safer to do physical activity:	9,5% Indoor 90,5% Outdoor
How important is it to practice physical activity?	- in daily life (88,1%) - to reach the skills development goals at the end of pre-school (97,6%)
Do you have experienced training on outdoor activities?	Yes 21,4% No 78,6%
Do you practice outdoor activities in pre-school?	Yes 7,1% No 92,9%
Do you think you are properly trained for this goal?	Yes 64,3% No 34,7%

Table n.1 Questionnaire

Discussion

Teacher's answers reveal interesting aspects, especially when compared with the answers provided by Primary Education Science students (D'Elia et al., 2021) and by Sport and Exercise Sciences (Raiola et al., 2020).

From the answers provided by the teachers it emerged that 23.8% are physically active, that is they reach the levels of physical activity recommended by the WHO, while 50% are partially active, so they carry out some activities but do not reach 150 minutes a week and 26.2% said they are sedentary and did not engage in physical activity in their free time. These data are very similar to that found in Primary Education Science Students, despite the average age of the teachers is more than double that of the students who participated in the study, so although we can read positively the fact that the levels of physical activity between will-be teachers and pre-school teachers are not reduced with advancing age, it is however necessary to encourage pre-school teachers to be more physically active both in their free time and during work, first of all for their health and wellbeing (Raiola, 2015, Gaetano, 2016, Tiziana et al., 2017) but most of all because the pre-school should involve children and teacher in experiential teaching/learning processes, as the organizational-teaching structure of the pre-school it is based on activism and therefore should offer diversified opportunities in the different fields of experience, including "the body and the movement" which offers many dynamic educational opportunities (D'Isanto, 2016, 2019, Raiola, 2013). As for the university students, also for the teachers, in 82.9% of cases the restrictions to which we have been subjected for several months now are affecting the levels of physical activity carried out.

When asked about the places of practice, excluding sedentary people, it emerges that the activity is carried out mainly in indoor environments (home, gyms or indoor sports facilities) and in 36.4% of cases in outdoor environments (city parks, urban environment, nature, etc.). This data must also be related to the availability of adequate facilities for practice which seems to be very large and in much higher quantities for indoor activities than outdoor ones. As well as for the quantity of physical activity, also for the places of practice, new horizons must be envisaged, proposing outdoor education as an elective educational practice in pre-school, combining the experiential methodology with the optimization of the indoor and outdoor areas of the school and of the other educative contexts (Tortella et al., 2019) to amplify the meanings that the experience of the body and movement can assume in the school context (Haug et al., 2010).

It was also interesting to find that despite the current and consolidated smart configuration of work, which at school has translated into distance learning, with peculiarities and difficulties even more specific for the childhood segment, the teachers declare that they do not have a greater quantity of free time to address to physical activity, except in 28.6% of cases, but the rather peculiar data is that in this particular period in 90 % of cases the practice of outdoor activities increases the perception of safety in carrying out physical activity. With adequate training, this perception could encourage teachers to carry out more activities in outdoor environments,

also bridging some limits that safety protocols involve in teaching, especially in pre-school, where children are not asked to wear masks and there are greater opportunities for contact and exchange.

Regarding the value that teachers attribute to physical activity, emerges the importance of physical activity in daily life in 88% of cases and a high recognition of the contribution that the field of experience of the body and movement offers for the achievement of skills development goals at the end of pre-school, specifically for unstructured opportunities for play (Ernst, 2014a). The teachers experience the importance of this field on a daily basis and the distance teaching method has highlighted this fact even more, bringing out a greater awareness of the importance of the sensory-perceptive and motor experience for the development of the child (Gordon et al., 2013).

It also emerges that, unlike will-be teachers in training at Primary Education Sciences master's degree, teachers have had few experiences of outdoor practice, only 21.4% declared having had training outdoor experiences; however, the fact that most of all highlights the need for specific training that raises awareness and makes teachers aware of the beneficial effects of outdoor education (Valentini et al., 2019, Monti et al., 2019), concerns the practice of outdoor activities in pre-school, only 7% of teachers declared that they carrying out activities in outdoor environments, a fact that is in contrast with the expectations of Primary Education Science students who in 98% of cases plan to carry out educational activities in outdoor environments as will-be teachers. These findings suggest to increase pre-school teachers' use of natural outdoor settings reducing barriers, making the use of outdoor settings more feasible (Ernst, 2014b, Kernan, 2010). Finally, 34.7% of teachers perceive that they are not adequately trained for the design and management of these types of activities in outdoor environments. These latest data guide us not only in defining the training courses to be offered to teachers in service but also in the school organization so that schools can be increasingly available to welcome outdoor movement experiences (Storli, 2010).

Conclusions

The collected data revealed a high recognition of the contribution that the field of experience of the body and movement offers for the achievement of skills development goals at the end of pre-school but at the same time emerge specific training needs by pre-school teachers in the field of experience "Body and movement" which, during childhood, represents the crossroads of children's growth, maturation and development experiences and which can also become an opportunity for teachers and children to be more active, to teach/learn better and stay as well.

Teachers must be encouraged to be more physically active both in their free time and during work mostly in outdoor environments (city parks, urban environment, nature, schoolyard etc.). The availability of environments for practice seems to be very large for indoor activities and in much greater quantities than outdoor ones, therefore it is necessary to invest in school buildings to create and / or adapt outdoor dedicated spaces, as Outdoor Movement Education OE activities, compared to indoor ones and according to teachers' perceptions, offer greater opportunities to promote the child's development at different levels, especially when children are 3 to 6 years old (Agostini et al., 2018, Niklasson et al., 2010, Fjørtoft, 2001, Goldfield et al., 2012). Moreover, the practice of physical activities in outdoor environment increases the perception of safety in carrying out physical activity, so with proper permanent training on children's movement and learning during outdoor free play and including more natural features in the design of outdoor play areas, this perception could encourage teachers to do more outdoor movement education improving children's body and movement awareness (Gehris et al., 2014).

References

- Agostini F, Minelli M and Mandolesi R (2018) Outdoor Education in Italian Kindergartens: How Teachers Perceive Child Developmental Trajectories. *Front. Psychol.* 9:1911. doi: 10.3389/fpsyg.2018.01911
- D'Isanto, T. (2016) Pedagogical value of the body and physical activity in childhood, *Sport Science*, 9, pp. 13-18.
- D'Isanto, T. (2019) State of art and didactics opportunities of physical education teaching in primary school, *Journal of Physical Education and Sport*, 19, art. no. 257, pp. 1759-1762.
- D'Elia F., D'Isanto T. (2021) Body, movement and Outdoor education in pre-school during COVID 19: the perceptions of will-be teachers during university training. *Journal of Human Sport and Exercises*
- D'Elia, F., Tortella, P., Sannicandro, I., & D'Isanto, T. (2020). Design and teaching of physical education for children and youth. *Journal of Human Sport and Exercise*, 15(4proc), S1527-S1533.
- D'Elia, F. (2020). Teachers' perspectives about contents and learning aim of physical education in Italian primary school. *Journal of Human Sport and Exercise*, 15(2proc), S279-S288. doi:https://doi.org/10.14198/jhse.2020.15.Proc2.19
- Di Domenico, F., Fattore, S., D'isanto, T. (2019a) The movement: Complexity and reductionism, evidence in comparison, *Journal of Human Sport and Exercise*, 14 (Proc4), pp. 1-8.
- Di Domenico, F., Fattore, S., Pignato, S., D'isanto, T. (2019b) Relationship between motor learning and reaction capacity in motor task, *Journal of Human Sport and Exercise*, 14 (Proc4), pp. S1030-S1037.

- Ernst Julie (2014a). Early Childhood Educators' Preferences and Perceptions Regarding Outdoor Settings as Learning Environments, *International Journal of Early Childhood Environmental Education*, 2 (1), p. 97-125
- Ernst Julie (2014b) Early childhood educators' use of natural outdoor settings as learning environments: an exploratory study of beliefs, practices, and barriers, *Environmental Education Research*, 20:6, 735-752, DOI: 10.1080/13504622.2013.833596
- Fjørtoft Ingunn (2001). The Natural Environment as a Playground for Children: The Impact of Outdoor Play Activities in Pre-Primary School Children, *Early Childhood Education Journal*, Vol. 29, No. 2, 111-117
- Gaetano, A. (2016) Relationship between physical inactivity and effects on individual health status, *Journal of Physical Education and Sport*, 16, pp. 1069-1074.
- Gehris J. S., Gooze R. A. and Whitaker R. C. (2014). Teachers' perceptions about children's movement and learning in early childhood education programmes, *Child: care, health and development*, 41, 1, 122–131
- Goldfield GS, Harvey A, Grattan K, Adamo KB (2012). Physical activity promotion in the preschool years: a critical period to intervene. *Int J Environ Res Public Health* 2012, 9:1326–1342.
- Gordon ES, Tucker P, Burke SM, Carron AV (2013). The effectiveness of physical activity interventions for preschoolers: a meta-analysis. *Res Q Exerc Sport* 2013, 84:287–294.
- Haug E., Torsheim T., Sallis J.F. and Samdal O. (2010). The characteristics of the outdoor school environment associated with physical activity, *HEALTH EDUCATION RESEARCH* Vol.25 no.2 2010, pp. 248–256
- Kernan, Margaret (2010). "Outdoor Affordances in Early Childhood Education and Care Settings: Adults' and Children's Perspectives." *Children, Youth and Environments* 20(1): 152-177.
- Law 13 July 2015, no. 107. Reform of the education and training system and reorganization the legislation on education.
- Monti Fiorella, Farné Roberto, Crudeli Fabiola, Agostini Francesca, Minelli Marianna & Ceciliani Andrea (2019) The role of Outdoor Education in child development in Italian nursery schools, *Early Child Development and Care*, 189:6, 867-882, DOI: 10.1080/03004430.2017.1345896
- MIUR - Italian Ministry of Education (2012). *National Guideline for the curriculum of first cycle and pre-school*. Rome
- Niklasson Laila & Anette Sandberg (2010) Children and the outdoor environment, *European Early Childhood Education Research Journal*, 18:4, 485-496, DOI: 10.1080/1350293X.2010.525945
- Raiola, G., Aliberti, S., Esposito, G., Altavilla, G., D'Isanto, T., & D'Elia, F. (2020). How has the Practice of Physical Activity Changed During the COVID-19 Quarantine? A Preliminary Survey. *Teoriã ta Metodika Fiziãnogo Vihovannã*, 20 (4), 242-247.
- Raiola, G. (2011) Study between neurophysiological aspects and regulation documents on preschool in Italy, *Journal of Physical Education and Sport*, 11 (1), pp. 42-47.
- Raiola, G. (2013) Body knowledge and motor skills, *Knowledge Cultures*, 1 (6), pp. 64-72.
- Raiola, G. (2015a) Sport skills and mental health, *Journal of Human Sport and Exercise*, 10 (Specialissue), pp. S369-S376.
- Raiola, G. (2017). Motor learning and teaching method, *Journal of Physical Education and Sport*, 17, art. no. 236, pp. 2239-2243
- Storli Rune & Hagen Trond Løge (2010) Affordances in outdoor environments and children's physically active play in pre-school, *European Early Childhood Education Research Journal*, 18:4, 445-456, DOI: 10.1080/1350293X.2010.525923
- Tiziana, D., Antonetta, M., Gaetano, A. (2017) Health and physical activity, *Sport Science*, 10 (1), pp. 100-105.
- Tortella, P; Fumagalli, G; Coppola, R; Schembri, R; Pignato, S (2019). The role of the educator/adult in supporting children of pre-school age in learning difficult tasks: the case of the Playground "Primo Sport 0246" *Journal of Physical Education and Sport*. Vol. vol. 19 suppl. 5. pag. 2015-2023
- Valentini M., Guerra F., Troiano G., Federici A. (2019). Outdoor Education: corpo, apprendimento, esperienze in ambiente naturale (Outdoor Education: Body, Learning, Nature). *Formazione&Insegnamento*, XVII, 1, 415-427.
- Tsanganidou Niki (2017) Early childhood teachers' views about teaching physical education: challenges and recommendations, *Physical Education and Sport Pedagogy*, 22:3, 283-300, DOI: 10.1080/17408989.2016.1192593
- McClintic Sandra & Petty Karen (2015) Exploring Early Childhood Teachers' Beliefs and Practices About Preschool Outdoor Play: A Qualitative Study, *Journal of Early Childhood Teacher Education*, 36:1, 24-43, DOI: 10.1080/10901027.2014.997844