OUTDOOR EDUCATION: OBSTACLES AND PERSPECTIVES FOR PRACTICING OUTDOOR LEARNING IN ROMANIA

DOI: 10.26758/12.1.9

Sergiu-Lucian RAIU (1), Oana MÎNDRUŢ (2)

- (1) Department of Humanities and Social-Political Sciences, Faculty of History and Geography, Romania, "Ștefan cel Mare University" of Suceava
- (2) Life Education for All Organisation, Romania; E-mail: oanamindrut@yahoo.fr

Address correspondence to: Sergiu-Lucian Raiu, Department of Humanities and Social-Political Sciences, Faculty of History and Geography, "Ştefan cel Mare University" of Suceava, Romania, 13 University Street, Suceava, Romania, E-mail: raiu.sergiu@yahoo.com

Abstract

Objectives. Although in recent years more and more scientific studies demonstrate the benefits of outdoor educational activities on the harmonious development of children, in Romania outdoor education is not practiced enough and even is less promoted. The aim of this study was, on the one hand to see to what extent and in what form teachers currently practice outdoor educational activities, and, on the other hand to study the expectations of students, teachers and parents to carry out more outdoor educational activities.

Material and methods. The research was carried out as a foreplay to a national campaign to promote outdoor education, initiated by three Romanian non-governmental organizations that encourage outdoor education and carry out educational activities outside. It was carried out in the pandemic period of the Coronavirus, therefore three online questionnaires were addressed to students, teachers and parents of students. A sample of 3770 questionnaires were completed by students in mainstream schools (from the 3nd to 12th grade), 1907 questionnaires completed by teachers, and 3644 questionnaires completed by parents.

Results. In an overwhelming proportion, 94% of students and 95.5% of parents would like some of their school activities to take place outdoor, while only 2.1% of students said that they currently carry out educational activities in the open air.

Conclusions. Half of the students (56.6%) wish for more than 3 hours of outdoor educational activities per week. In average, teachers would like to spend outdoors with students between 10-30 hours of teaching activity per year, and 44.7% of parents would like more than 60 teaching hours per year to take place outdoors. In Romania, several more studies are needed to show the importance and the educational value of outdoor educational activities and outdoor play for the holistic development of children. It is also imperative to amend legislation and official documents to ensure that children are properly educated and they play outdoors during the school year. Outdoor education and physical activity should become part of children's daily routine and special attention should be to its potential for development.

Keywords: outdoor education, primary and high school students, teachers, parents perceptions, online sociological survey.

Introduction

A major problem facing modern societies is related to a decrease of physical activity and an increase in sedentary lifestyle. Poor mental health is one of the most significant economic and social challenges of the 21st century (Pitchforth et al., 2018). Growing urbanization patterns and alienation from the natural environment, increased the risk of cardiovascular and metabolic diseases, including type II diabetes and colon cancer. Moreover, the COVID-19 pandemic has caused a change in human behaviour that will persist for a long time. In addition to the large number of people who have died from viral infection, many others suffer from various psychological disorders, anxiety, stress and relationship problems (Haig-Ferguson, Cooper, Cartwright, Loades, & Daniels, 2020).

As far as children's lifestyle is concerned, their dependency on electronic devices causes them to spend more and more time indoors, in front of screens, instead of going out, playing and spending their time in an active way. Children are among those who suffer the most from the pandemic situation. Children have suffered, to varying degrees, the isolation of friends, grandparents, cousins and other relatives, have faced nutrition problems and decreased opportunities to exercise and this leading to an increase in sedentary lifestyle due to the use of digital technologies (Cachòn-Zagalaz et al., 2020). Doctors' recommendations during the pandemic, in addition to protective measures such as physical distancing and the use of masks to cover the nose and mouth, also include spending as much time in nature, because in open spaces the risk of infection is lower (Wong et al., 2020; Anderson, Heesterbeek, Klinkenberg, & Hollingsworth, 2020).

Research shows that physical activity and sports improve physical and mental health and decrease levels of anxiety and boredom, as well as feelings of loneliness (Sunhee Park, Beomsoo, & Lee, 2020). Also, among the benefits of spending time in nature, studies show that they increase people's attention (Huynh, Craig, Janssen, & Pickett, 2013), cognitive ability, involvement and better results at school (Payton et al., 2008).

In recent years, outdoor education has been promoted and practiced mainly by private educational institutions and less in the institutions of the state and weakly encouraged by the Ministry of Education. The benefits of contact with nature are numerous, regardless of the form in which this contact takes place. Either spending passive time outdoor, for example walking in rural areas (Capaldi, Dopko, & Zelenski, 2014), or participating in outdoor adventure programs (Lubans, Richards, Hillman, Faulkner, & Beauchamp, 2016) or incorporating elements of nature inside and around the buildings (whole walls decorated with vegetation, green roofs), all these induce a state of well-being for people.

As outdoor learning spaces, teachers can use schoolyards, parks, open-air museums, historical and cultural sites and even forests. Research has shown that play and outdoor activities offer multiple benefits in the development of children with valuable effects on health. Morgan, Hamilton, Bentley, and ve Myrie (2009) argued that outdoor activities are essential in unlocking creative potential, improving social skills (Harun & Salamuddin, 2014), enhancing problem solving and adaptive skills, they are fun and stimulating, and positively influence students' attitudes, values and beliefs; thus, these experiences remain in memory for a long time (Lakin, 2006), develop spatial perception skills (Seyhan, 2019), improve spatial intelligence (Amaluddin et al., 2019), help solve environmental problems (Ampuero, Miranda, Delgado, Goyen, & Weaver, 2015), improve learning and problem-solving skills (Wahyuni, Indrawati, Sudarti, & Suana, 2017), math skills (Widada, Herawaty, Anggoro, Yudha, & Hayati, 2018), enrich learning, promote participation and contribute to the development of students' skills

(Quibell, Charlton, & Law, 2017), provide an opportunity to put into practice theoretical knowledge in various fields, while allowing students to explore real-life problems (Genç, Genç, & Rasgele, 2017), improve children's mood and wellbeing (Deborah et al., 2020).

Natural environment has been identified as a space that supports physical and mental health, emotional well-being, and provides better ability to cope with stress (Adams & Savahl, 2017; Gill, 2014). Nature provides a more supportive, calmer and safer learning context (Kuo, Barnes, & Jordan, 2019; Mårtensson et al., 2009), offers an incredible wealth of loose items, open materials, and objects for children to manipulate (Dankiw, Tsiros, Baldock, & Kumar, 2020; Klofutar, Jerman, & Torkar, 2020), children are physically more active when they are outdoors (Cleland et al., 2008; Dankiw et al., 2020; Gill, 2014). Nature has prosocial effects and promotes warmer, more cooperative relationships (Dankiw et al., 2020; Scott, Boyd, & Colquhoun, 2013; Scott, Kilmer, Wang, Cook, & Haber, 2018).

In the natural environment, children feel more autonomy and freedom (Adams & Savahl, 2017; Dankiw et al., 2020; Kuo et al., 2019). Outdoor play and learning have a positive impact on children's self-esteem, self-confidence, and self-perception, as well as on their decision-making and risk-taking (Gill, 2014; O'Brien & Murray, 2007; Sandseter, 2009). It helps children acquire perseverance, self-efficacy, resilience, teamwork, leadership, and communication skills that are important later in adult life (Kuo et al., 2019).

Despite the fact the studies listed above, show the beneficial effects of outdoor time on the body and mental state of students, there are few data that systematically and uniformly measure the duration of children's outdoor activities at home, during early education and compulsory schooling in different countries and cultures. Within Europe the practices and terms that define outdoor education are not homogenous. Not all Europe countries have specified in their national legislation, curriculum or education law references to outdoor education and there are no systematic data on the number of hours that students spend outdoor during the school year in order to see the differences between countries.

There are few research and studies in Romania which showing the benefits of outdoor education on children. In Romania, outdoor educational activities are rarely part of the study programs of sports faculty students. Students of sports faculties in Eastern Europe allocate more than 5 hours per week for outdoor activities, while Romanian students say that they allocate 0 (zero) for this type of activities (Balint & Duță, 2018).

The Nordic countries (Finland, Iceland and Norway) have a cultural tradition of outdoor education which is stipulated in official documents. Outdoor education is included in the national programs of early education and compulsory education, as well as in the training programs for teachers. The structure of early education in the Nordic countries (Finland, Iceland, and Norway) provides 2-3 hour per day for outdoor play. The practice is not widespread throughout Europe because other countries are just beginning to promote outdoor education in schools.

In Belgium children are expected to play outdoor between 1 hour and 1 hour and 50 minutes, and in Wales and Italy children should spend 1-3 hours outdoors each day, but outdoor playtime is not officially specified in documents (Tortella et al., 2021).

In Romania, the legislation in the field of education does not necessarily require outdoor educational activities and does not stipulate the minimum number of outdoor hours per year and therefore the initiative for these types of activities is undertaken by teachers who decide whether to do these activities or not.

Material and methods

Purpose and methods of research

The research was carried out as a foreword to a national campaign to promote outdoor education, initiated by 3 non-governmental organizations that encourage outdoor education and carry out educational activities outside. Sociological research included three online questionnaires addressed to students, teachers and parents of students. The aim of the research was to see, on the one hand to what extent and in what form teachers currently practice outdoor educational activities, and on the other hand to probe the desire of students, teachers and parents to carry out more outdoor educational activities. The approach aims that, based on research followed by a campaign to raise awareness and promote outdoor education, the authorities propose a legislative initiative which stipulates that students in the compulsory education system carry out annually, during the school program, a certain minimum number of hours of outdoor educational activities.

Sample

More than 10,000 questionnaires were completed, but after removing the questionnaires that were not filled in completely, there remained a total of 9,321 distributed among the three categories of respondents as follows: 3770 questionnaires completed by students, representing 40.45% of the total questionnaires, 1907 questionnaires completed by teachers, representing 20.46% of the total, and 3644 questionnaires completed by parents representing 39.09% of the total questionnaires. Among the students who answered the questionnaire, the majority were girls, 58.6% (2114), and 41.4% (1493 students) were boys. More than half of them, 57.4% were students in secondary school (grades V-VIII), 27.1% were high school students (grades IX-XII), and 15.3% were students in primary school (grades III-IV). The vast majority of teachers who answered the questionnaire were female, 89.8% representing 1712 people, and 10.2% were male representing 194 respondents. Regarding the parents, the mothers were the ones who answered the questionnaire to the greatest extent, 89.1%, representing 3219 of the respondents, were females, and 10.9% were males, that is 395 people. Most of the parents had higher education 31.8% (1158 people), followed by 30.6%, 1115 people with high school or post-high school education and 20.1%, 732 people, with primary, secondary or vocational education. A percentage of 17.5%, 636 people, graduated a postgraduate program (master, doctorate).

The procedures for the 3 categories of respondents complied with the General Data Protection Regulation (GDPR) provided by EU Regulation 679/2016 (EU, 2016) and no identity data such as the personal numerical code of students, teachers or parents of students were requested.

At the beginning of the questionnaire, students were presented a consent form and those under the age of 16 were encouraged to show it to their parents in order to express their agreement/disagreement for the child's participation in the research. Students were asked at the beginning of the questionnaire whether their parents/guardians saw the information sheet and whether they agreed to participate in the study.

The questionnaire also included a question to the students asking for their consent to complete it. Moreover, the questionnaires also included in the information sheet which stated that the answers will be confidential and the access to the answers will be only for the team in charge of data analysis.

Data collection instruments

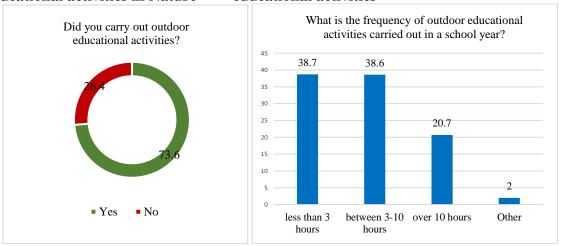
The online research was conducted on the basis of a sociological survey through a self-administered online questionnaire. Based on a sample of availability, any interested person had access to one of the 3 questionnaires for students, teachers or parents. The links to the questionnaires were posted on the Facebook page of the campaign, created especially for this research, and also on the Facebook pages of the 3 non-governmental organizations.

Results

The data collection period took place between February 10th and April 1st, 2021. The data were analysed using SPSS statistical software version 20.0. The practice of carrying out outdoor educational activities is a common practice among teachers across the country, at least according to the statements. There were 73.6%, representing 1404 teachers, who said that they carried out outdoor educational activities. However, just over a quarter of teachers, 26.4%, representing 503 teachers, said they did not carry out outdoor activities (Figure 1).

Figure 1. Carrying out outdoor educational activities in Nature

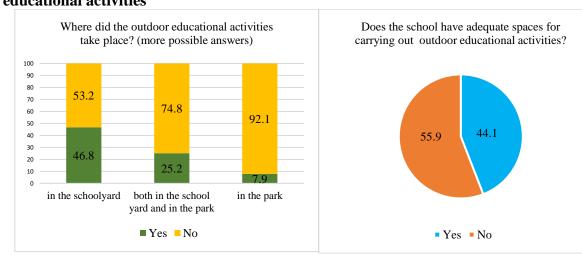
Figure 2. The frequency of outdoor educational activities



There were 38.7% of the teachers, who stated that in one school year they carry out less than 3 hours of outdoor activities and 38.6% of the teachers, said that they carry out between 3-10 hours of outdoor activities in a school year. Also, 20.7% of the teachers said that they held more than 10 hours of outdoor lessons in a school year (Figure 2).

Figure 3. The place of outdoor spaces educational activities

Figure 4. The existence of adequate



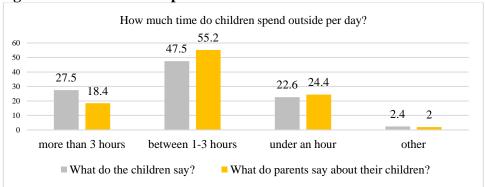
Most often, the educational activities carried out in nature take place in the school yard, 46.8% of the teachers, said that they carried out some lessons there. A quarter of the teachers, 25.2% teachers, said that they held some classes/lessons both in the school yard and in the park, and 7.9% of the teachers said that they held all the outdoor lessons in the park. There are teachers who said that they held classes in the churchyard, in the train station, in the museum yard, in the botanical garden, in the forest, on the river bank, on the stadium and even on the beach (Figure 3).

More than half of the teachers, 55.9% of the respondents said that the school where they work does not have adequate learning spaces for carrying out outdoor educational activities. However, 44.1% teachers, said that they have adequate spaces to carry out outdoor educational activities (Figure 4).

Although in most schools there were no spaces especially arranged for specific outdoor teaching-learning activities, there were teachers who said that they created them, adapting to the situation. When asked if there was specific outdoor furniture for educational activities, they mentioned benches, tables, chairs, wooden logs, straw bales, used and painted tires, and outdoor pillows. Some teachers said that it takes inventiveness to create spaces suitable for learning in nature: "I made a garden-library" (teacher, 53 years old), "on hot days, children can work outside sitting on the grass under the trees in the school yard" (teacher, 34 years old). Some teachers mentioned that they used chairs and even class benches that can be took outside, others mentioned special mattresses and that in general in schoolyards there were green spaces where students can sited on blankets. Some schools have covered spaces, such as gazebos "in the yard we have a covered area where we could put some benches and chairs and different grades can have classes there alternatively" (teacher, 40 years old), other teachers said that "there is a lot of green space and we have a project to set up a garden with wooden furniture for lessons" (teacher, 33 years old). There were teachers who said that they went outside, namely in the school yard, for instructive-educational activities "We go out for artistic activities, drawings on the sidewalk, nature observations, experiments, practical activities (...) activities specific to pre-schoolers" (teacher, 46 years). Other teachers said that although they had not yet gone out with students in nature, they intend to do that "I thought when the weather

is fine to take the students out of class and go to the green space with tablet or phone, to read and talk" (teacher, 29 years). Even some lessons of science subjects such as mathematics, physics can be taught in nature. One teacher said: "I work in rural areas and we have a large yard with sports fields, two orchards and a place to walk with grass and flowers. We don't have anything adequately covered. I rarely spent hours outside. I teach math and we went out to take measurements, after which the students calculated perimeters and areas. They measured the orchards, the small school, the high school, the sports fields and the walking places with benches. They were divided into groups. But I have other contents to teach, not only areas and perimeters, so I only have the opportunity to do this once a year or during revision classes, if there is enough time" (math teacher, 49 years old). Other teachers take the students outdoor not necessarily to give some lessons: "In the green space around the school there are some benches. When it's hot, we go out sometimes and have discussions on different topics rather than the usual lessons. However, students' attention is often distracted by minor events in the immediate space, and the teacher's voice is lost among other sounds and presences. The hours thus spent become tiring and inefficient. A location in nature isolated from external disturbing visual and auditory stimuli could give, however, different results." (Romanian teacher, 34 years old).

Figure 5. Time children spend outside



Almost half of the students who answered the questionnaire 47.5% students, said that on an ordinary day they spend between 1-3 hours outdoor. Just over a quarter of the respondent students (27.5%) said that they spend more than 3 hours a day outdoor. There are also 22.6% of students, who mentioned that, on an ordinary day, they spend less than an hour outdoor. Also, 2.4% mentioned other answers: that there was days when they spend a lot of time outside, and on other days not at all, they go out very rarely in winter, and more in summer or that they spend more time in nature on weekends than during the week "because during the week they do not have time due to homework and study" (boy, third grade, age 10). Over half of the parents (55.2%), said that on average their child/children spend between 1-3 hours in nature on a normal day. There were 24.4% of the parents who said that the time spent by the child in nature is less than one hour, and 18.4% of the parents said that on average their child/children spend more than 3 hours outdoor on an ordinary day (Figure 5).

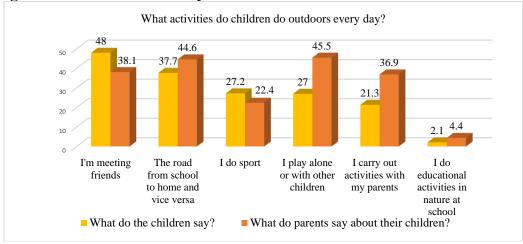


Figure 6. Outdoor activities by children

Most of the students, i.e. 48% said that the activity they do every day outside is meeting friends. For three quarters of the students, 37.7%, the only time spent outside is the way from school to home and vice versa. There were 27.2% who said that when they go out, they practice a sport, 27% students said that they play alone or with other children. Also 21.3% students carry out activities together with their parents and only 2.1% of students said that they do outdoor activities at school.

Parents said that the types of activities that their children do in nature are those in which they play both alone and with other children (45.5%), followed by the 44.6% of parents, who said that the only time their children spend in nature is on the way home from school and vice versa. Of these, 38.1% of parents said that when their children are away from home, they meet their friends, 36.9%, of parents, said that they do activities with their children in nature, and 22.4% parents said that when they are out of the house, their children practice a sport. Only 4.4% of parents said that at school their children carry out outdoor educational activities (Figure 6).

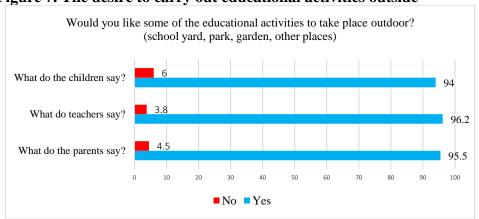
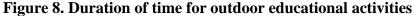


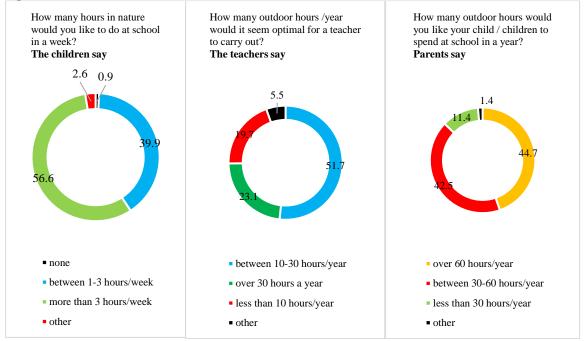
Figure 7. The desire to carry out educational activities outside

Asked if they would like that some of the educational activities during the school program to take place outdoor, for example in school yard, park, garden or other places, the vast majority of students, 94% answered yes, and 6% students, said that they are not necessarily

eager to go out during school hours to carry out educational activities. Among teachers, 96% of them, said that they would like some of the teaching activities to take place outside. There are also 3.8% teachers, who are not necessarily willing to carry out even a part of their teaching activities outside.

Among parents 95.5% would like some of the educational activities at school to be done outdoor by their children. There were also 4.5% of parents, who have not considered outdoor school activities necessary (Figure 7).





Among the students 96.5% of them would like to spend outdoor at least one hour per week during their school program. More than half of the students, 56.6% would like to spend outside 3 hours per week during the school program. Only 0.9 % of students do not want to go outside during the school year.

Of the total number of hours in a school subject, between 10-30 hours per school year should take place outdoor, this being stated by more than half of the responding teachers representing 51.7% of teachers.

Also, 23.1% of teachers, said that the optimal number of hours that should take place outdoor, for each school subject during a school year, is over 30 hours/year. There were 19.7% teachers, who considered that less than 10 outdoor hours/year are enough. Of the parents, 44.7% considered that over 60 hours/year should be spent in nature. Of these, 42.5% of parents, considered optimal a number between 30-60 hours/year spent in nature, and 11.4% of parents said that less than 30 hours/year of outdoor teaching activities are sufficient. Although it may seem that parents want their children to have more hours of instructional activities in nature compared to the number of hours their children want, the question for parents was to estimate the number of hours per year, and the children they estimated the number of hours per week.

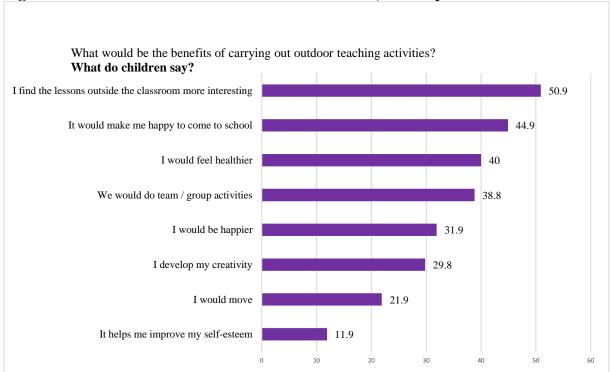


Figure 9. The benefits of outdoor educational activities, in the opinion of children

Half of the students, 50.9% children said that they would find the subjects studied in school more interesting if they took place outside. In the case of 44.9% of students outdoor lesson would make them come to school with greater pleasure. There were 40% of students believe that they would feel healthier if they spent time in nature at school.

Also 31.9% students, would feel even happier, and 29.8% of students consider that they would even develop their creativity by spending outdoor time in school.

There have been other cases 11.9% of students considered that carrying out outdoor activities with their classmates during the school program would even help improving their self-esteem. For 38.8% of the students, outdoor school activities would determine them to work better in a team or group, and 21.9% of students consider that this would make them exercise (Figure 9).

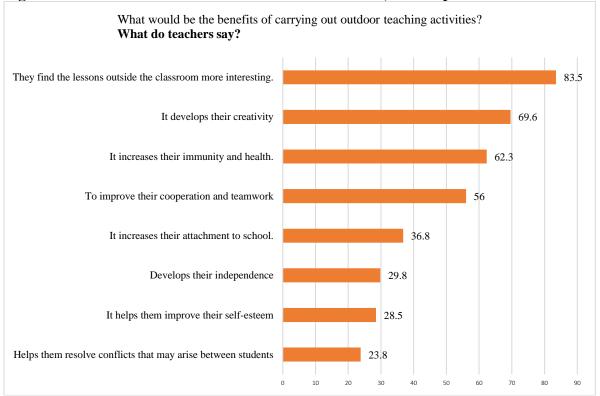


Figure 10. The benefits of outdoor educational activities, in the opinion of teachers

From the perspective of teachers, the most important benefits of alternating indoor and outdoor activities are that students would find more interesting the subjects studied if they were carried out outside the classroom (83.5% of the teachers, stated this). There were 69.6% teachers, are of the opinion that teaching activities outdoor develop students' creativity.

Also 62.3% of the teachers, believed that it would increase the immunity and improve the health of students and more than half of the teachers, 56% which means 1068, believed that it leads to students' improved cooperation and teamwork if some of the teaching activities would take place outdoor.

Among the positive aspects there are also mentioned: students' attachment to school (36.8%), the development of independence (29.8%), the improvement of self-esteem (28.5%) and the fact that outdoor activities help students solve potential conflicts (23.8%) (Figure 10).

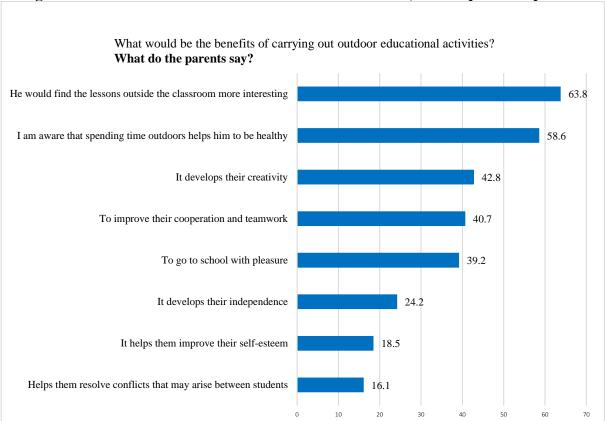


Figure 11. The benefits of educational activities in nature, in the opinion of parents

Most parents, 63.8% considered that children having some outdoor lessons in the school program would make lessons more interesting. Of these, 58.6% of the parents, were aware that the time spent outdoors helps the child to be healthy.

Among the positive aspects of a certain number of hours outdoors, within the school curriculum, mentioned by parents were also the development of creativity (42.8%), the improvement of cooperation and teamwork (40.7%), going happily to school (39.2%), developing independence (24.2%), improving self-esteem (18.5%) and the ability to solve conflicts that may arise between students (16.1%) (Figure 11).

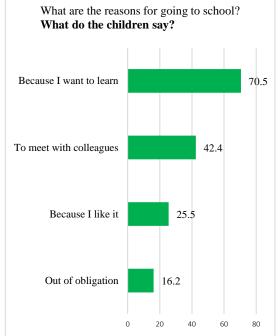
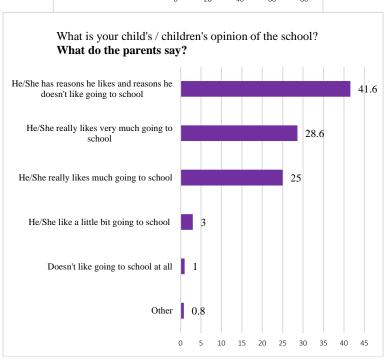


Figure 12. The reasons for going to school in the opinion of children and parents



The vast majority of students, 70.5%, that is 2658, said they go to school because they want to learn. For 42.4% of the students, meeting with colleagues is a good reason to go to school. Only a quarter of students, 25.5% said that they go to school because they like it, and 16.2% students, go to school out of obligation. Most parents, 41.5% considered that, in some respects, their children like to go to school, and in other respects they do not. In a higher proportion than students, half of the parents, 53.6%, think that their children like to go to school and 28.6% parents said that they feel that their children really like to go to school. There were

also 4% parents, who said that their children do not like to go to school. Of these, 35 parents, 1%, said that their children do not like going to school at all (Figure 12).

Discussions

Different cultures may have different views on educational activities in nature. Some countries, such as Canada and Finland recognize the important role of outdoor educational activities in respecting children's best interest. In Romania, 47.5% of the students spend, on an ordinary day, between 1-3 hours outside, most of them, 48%, to meet friends and only 2.1% said they have outdoor school activities. 94% of students would like to spend part of their school hours outdoor. Most of them, 96.5%, want to have at least one hour/week of outdoor learning activities, and half of them want more than 3 hours/week of school activities to take place outside.

Children's education should take into account the benefits that outdoor educational activities bring to children. In Europe, in the Nordic countries, children spend a few hours per day outside, this is an educational approach that puts the environment at the heart of human society and promotes among children values such as respect for nature and understanding the fragility of the ecosystem in which we live. In Romania 50.9% of students said that the subjects they study at school would seem more interesting if some of the classes were held outdoor, and 44.9% said that this would make them come to school with more pleasure. The vast majority of students, 70.5% go to school because they want to learn, but there are also 16.2% who said they do it out of obligation.

In Romania, nature education is still insufficiently regular practiced. In the country project "Romania Educated" the only reference to outdoor education mentions the hours provided in the framework plan for school subjects related to Science, Technology, Engineering and Mathematics (STEM) and which states that half of them be conducted outdoor or in laboratories (Educated Romania, 2020, p. 100). It also refers to the concept of "Green School", through eco-education, experiential learning, but which will also take place inside because we want a "(re)configuration of schools as environmentally friendly spaces" (Educated Romania, 2020, p. 80). Carrying out teaching activities in nature it is a known thing, but rarely put into practice among 73.6% of teachers in Romania, and 26.4% of teachers say that did not hold regular outdoor activities when teaching their school subjects. The yard or parks near the school are places where teachers often do outdoor activities, but other places are also mentioned such as the museum courtyard, the botanical garden, the forest, the churchyard, the train station, the riverside, the stadium and even the beach. Over half of the teachers, 55.9%, say that the school where they work does not have adequate learning spaces (covered) for carrying out teaching activities in nature, but when the weather allows, they are willing to use the school facilities, alleys with benches, green spaces where blankets can be placed. Between 10-30 hours/year would be indicated to be held outdoor, this is what 51.7% of teachers say. There were 83.5% of the teachers who considered that the studied disciplines would seem more interesting to the students if the activity takes place outdoor and that, this way, students' creativity would improve (69.6% of the teachers stated that). Among parents 95.5% would like that some of the school subjects to be taught outdoor. Also, 44.7% of parents considered that among school activities over 60 hours/year should be outdoor, and 42.5% consider optimal a number between 30-60 outdoor hours/year. In a significant proportion, 63.8% parents also consider that some of the classes from the school subjects would make children more interested if they are held outdoor and 58.6% of parents think it is really healthy for children to spend a few hours outdoor during their school program. Also 41.5% of parents consider that in some respects their children like to go to school, and in other respects they do not. And yet half of parents, 53.6%, believe that their children like to go to school. The vast majority of teachers, 77.9%, and parents, 83.8%, would sign a petition requesting the Romanian Ministry of Education to propose a recommendation in legislation to encourage teachers in the pre-university education system to hold a number of classes outdoor.

Conclusions and recommendations

In Romania, several studies are needed to show the importance of outdoor educational activities and outdoor play in the holistic development of children. It is also imperative to amend legislation and official documents to ensure that children are properly educated and they play outdoors during the school year. Outdoor education should become part of children's daily routine and special attention should be paid to active movement and outdoor learning. Solutions can be identified in order to help reduce the impact of the pandemic on learning and reduce learning gaps due to school closures, for example preparing outdoor spaces in educational institutions and introducing the obligation for teachers to carry out two outdoor activities daily, other than those of physical education, at all levels of education, where possible for school subjects, depending on climatic conditions according to the Recommendation for the start of the 2020-2021 school year in safe conditions, with the promotion of quality inclusive education, for all children in Romania, (Unicef, 2020). The data of the present study show that students, teachers and parents are eager to carry out outdoor educational activities, but this requires an initiative such as that of the 3 non-governmental organizations, which are among the pioneers who have promoted the concept of "outdoor education" in Romania, have facilitated the setting of such learning spaces in the schoolyards from several areas of the country and have encouraged teachers who carry out outdoor educational activities to promote such activities so that other teachers to follow this model. The initiative should be taken over by state institutions and funds need to be allocated for a national program for the development of outdoor learning spaces, and at the legislative level measures should be taken in order to stimulate outdoor education for each education system level: early education, primary, secondary and high school, as well as for higher education.

The study contributed relevant information that formed the basis of the funding guide "Non-formal education in the outdoor system", developed by the Romanian Ministry of Education, which was in public consultation until October 4 2021, but from next year, will be a public instrument of financing outdoor learning spaces for schools wishing to practice outdoor education.

Acknowledgements

A summary of this paper was presented at online International Conference: "*Individual, family, society - contemporary challenges*", Fourth Edition, 6 to 7 October 2021, Bucharest, Romania and published in the Anthropological Researches and Studies, No. 7/2021.

This study is part of a Romanian national campaign entitled "Outdoor School - the campaign to promote outdoor education" initiated by the associations "Living Nature" Association [Asociația Natura Vie], Life Education for All and Leprechauns Forest Association [Asociația Spiridușii Pădurii] and coordinated by Oana Mîndruţ, president of the association "Living Nature" and Life Education for All.

More information on the campaign on Facebook page: https://www.facebook.com/scoalainnatura

References

- 1. Adams, S., & Savahl, S. (2017). Nature as children's space: A systematic review. *The Journal of Environmental Education*, 48(5), 291-321, https://doi.org/10.1080/00958964.2017.1366160
- 2. Ampuero, D., Miranda, C. E., Delgado, L. E., Goyen, S., & Weaver, S. (2015). Empathy and critical thinking: Primary students solving local environmental problems through outdoor learning. *Journal of Adventure Education & Outdoor Learning*, 15(1), 64–78. https://doi.org/10.1080/14729679.2013.848817
- 3. Anderson, R.M., Heesterbeek, H., Klinkenberg, D. & Hollingsworth, T.D. (2020). How will country-based mitigation measures influence the course of the COVID-19 epidemic? *Lancet*, 395(10228), 931-934, Retrieved in September 2019 from https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30567-5/fulltext
- 4. Balint, G., & Duță, D. (2018). Comparative Study on Practicing Outdoor Activities in Romania And Eastern Europe, *Scientific Review of Physical Culture*, volume 7, issue 4., Retrieved in September, 2021 from https://www.researchgate.net/publication/323028796_COMPARATIVE_STUDY_ON_PRACTICING_OUTDOOR_ACTIVITIES_IN_ROMANIA_AND_EASTERN_EUROP E EN
- Cachón-Zagalaz, J., Sánchez-Zafra, M., Sanabrias-Moreno, D., González-Valero, G., Lara-Sánchez, A. J., & Zagalaz-Sánchez, M. L. (2020). Systematic Review of the Literature About the Effects of the COVID-19 Pandemic on the Lives of School Children. Frontiers in psychology, 11, 569348. https://doi.org/10.3389/fpsyg.2020.569348
- 6. Capaldi, C. A., Dopko, R. L., & Zelenski, J. M. (2014). The relationship between nature connectedness and happiness: A meta-analysis. *Frontiers in Psychology*, 5(976), 1–15. https://doi.org/10.3389/fpsyg.2014.00976.
- 7. Cleland, V., Crawford, D., Baur, L. A., Hume, C., Timperio, A., & Salmon, J. (2008). A prospective examination of children's time spent outdoors, objectively measured physical activity and overweight. *International journal of obesity* (2005), 32(11), 1685–1693. https://doi.org/10.1038/ijo.2008.171
- 8. Dankiw KA, Tsiros MD, Baldock KL, Kumar S (2020) The impacts of unstructured nature play on health in early childhood development: A systematic review. *PLoS ONE* 15(2): e0229006. https://doi.org/10.1371/journal.pone.0229006
- 9. Deborah J. Harvey; Louise N. Montgomery; Hannah Harvey; Felix Hall; Alan C. Gange; Dawn Watling, (2020). Psychological benefits of a biodiversity focussed outdoor learning program for primary school children, *Journal of Environmental Psychology*, 67, https://doi.org/10.1016/j.jenvp.2019.101381
- 10. Genç, M., Genç, T., & Rasgele, P. G. (2017). Effects of nature-based environmental education on the attitudes of 7th grade students towards the environment and living organisms and affective tendency. *International Research in Geographical and Environmental Education*, 1–16. https://doi.org/10.1080/10382046.2017.1382211
- 11. Gill T. (2014). The Benefits of Children's Engagement with Nature: A Systematic Literature Review. Children, Youth and Environments, 24(2), 10–34. https://doi.org/10.7721/chilyoutenvi.24.2.0010

- 12. Haig-Ferguson, A., Cooper, K., Cartwright, E., Loades, M. E., & Daniels, J. (2021). Practitioner review: health anxiety in children and young people in the context of the COVID-19 pandemic. Behavioral and cognitive psychotherapy, 49(2), 129–143. https://doi.org/10.1017/S1352465820000636
- 13. Harun, M. T., & Salamuddin, N. (2014). Promoting social skills through outdoor education and assessing its' effects. Asian Social Science, 10(5), 71–78. https://doi.org/10.5539/ass.v10n5p71
- 14. Huynh, Q., Craig, W., Janssen, I., & Pickett, W. (2013). Exposure to public natural space as a protective factor for emotional well-being among young people in Canada. BMC Public Health, 13(407), 1–14. https://doi.org/10.1186/1471-2458-13-407.
- 15. Klofutar, Š., Jerman, J., Torkar, G. (2020). Direct versus vicarious experiences for developing children's skills of observation in early science education. International Journal of Early Years Education. 28, 1–18, https://doi.org/10.1080/09669760.2020.1814214
- 16. Kuo, M., Barnes, M., Jordan, C. (2019). Do experiences with nature promote learning? Converging evidence of a cause-and-effect relationship. Frontiers in Psychology, vol. 10, 305, https://doi.org/10.3389/fpsyg.2019.00305
- 17. Lakin, L. (2006). Science beyond the classroom. Journal of Biological Education, 40(2), 88–90. https://doi.org/10.1080/00219266.2006.9656021
- 18. Lubans, D., Richards, J., Hillman, C., Faulkner, G., & Beauchamp, M. (2016). Physical activity for cognitive and mental health in youth: A systematic review of mechanisms. Pediatrics, 138(3), e20161642, https://doi.org/10.1542/peds.2016-1642
- 19. Mårtensson, F., Boldemann, C., Soderstrom, M., Blennow, M., Englund, J.E., Grahn, P. (2009). Outdoor environmental assessment of attention promoting settings for preschool children. *Health & Place* 15, 1149–1157, https://doi.org/10.1016/j.healthplace.2009.07.002
- 20. Morgan, S. P., Hamilton, S. P., Bentley, M. L., & ve Myrie, S. (2009). Environmental education in botanic gardens: Exploring Brooklyn Botanic Garden's project green reach. The Journal of Environmental Education, 40(4), 35–52. https://doi.org/10.3200/JOEE.40.4.35-52.
- 21. O'Brien, L., & Murray, R. (2007). Forest school and its impacts on young children: case studies in Britain. Urban Forestry & Urban Greening. 6, 249–265, https://doi.org/10.1016/j.ufug.2007.03.006
- 22. Payton, J., Weissberg, R.P., Durlak, J.A., Dymnicki, A.B., Taylor, R.D., Schellinger, K.B., & Pachan, M. (2008). The positive impact of social and emotional learning for kindergarten to eighth-grade students: Findings from three scientific reviews. Chicago, IL: Collaborative for Academic, Social, and Emotional Learning. accessed in September 2021 at http://refhub.elsevier.com/S0272-4944(19)30353-6/sref54
- 23. Pitchforth, J., Fahy, K., Ford, T., Wolpert, M., Viner, R. M., & Hargreaves, D. S. (2018). Mental health and well-being trends among children and young people in the UK, 1995—2014: Analysis of repeated cross-sectional national health surveys. Psychological Medicine, 1–11, https://doi.org/10.1017/S0033291718001757
- 24. Quibell, T., Charlton, J., & Law, J. (2017). Wilderness Schooling: A controlled trial of the impact of an outdoor education programme on attainment outcomes in primary school pupils. British Educational Research Journal, 43(3), 572–587, https://doi.org/10.1002/berj.3273.

- 25. Amaluddin, L.O., Rahmat., Surdin., Ramadhan, M. I., Hidayat, D. N., Sejati, A. E., Purwana, I. G., & Fayanto, S. (2019). The Effectiveness of Outdoor Learning in Improving Spatial Intelligence. Journal for the Education of Gifted Young Scientists, 7(3), 717-730, http://dx.doi.org/10.17478/jegys.613987
- 26. Sandseter, E.B.H. (2009). Affordances for Risky Play in Preschool: The Importance of Features in the Play Environment. Early Childhood Education Journal 36, 439–446, https://doi.org/10.1007/s10643-009-0307-2
- 27. Scott, G., Boyd, M. & Colquhoun, D. (2013). Changing spaces, changing relationships: the positive impact. Journal of Outdoor and Environmental Education 17, 47–53, https://doi.org/10.1007/BF03400955
- 28. Scott, J.T., Kilmer, R.P., Wang, C., Cook, J.R., Haber, M.G. (2018). Natural environments near schools: potential benefits for socio-emotional and behavioral development in early childhood. American Journal of Community Psychology, 62, 419–432, DOI: 10.1002/ajcp.12272
- 29. Seyhan, A. (2019). Out-of-school learning to achieve the spatial perception skills: A case study. Review of International Geographical Education Online, 9(3), 618–638, DOI: 10.33403/rigeo.601734
- 30. Sunhee Park, R.N., Beomsoo, K.,& Lee, J. (2020). Social distancing and outdoor physical activity during the COVID-19 outbreak in South Korea: Implications for physical distancing strategies. Asia Pacific Journal of Public Health, 32 (6-7), 360-362. doi.org/10.1177/1010539520940929.
- 31. Tortella, P.; Ceciliani, A.; Fumagalli, G.; Jidovtseff, B.; Wainwright, N.; Fjortoft, I.; Sigmundsson, H.; Haga, M.; Sgrò, F.; Lipoma, M.; Sääkslahti, A. (2021). Children's outdoor movement education: position statement, Journal of Physical Education and Sport, Vol 21 (Supplement issue 1), online ISSN: 2247 806X; p-ISSN: 2247–8051; ISSN-L = 2247–805, DOI:10.7752/jpes.2021.s1046
- 32. Wahyuni, S., Indrawati, I., Sudarti, S., & Suana, W. (2017). Developing science process skills and problem solving abilities based on outdoor learning in junior high school. Journal Pendidikan IPA Indonesia, 6(1), 165–169, https://doi.org/10.15294/jpii.v6i1.6849.
- 33. Widada, W., Herawaty, D., Anggoro, A. F. D., Yudha, A., & Hayati, M. K. (2018). Ethnomathematics and outdoor learning to improve problem solving ability. [Conference presentation]. October 26-28. Bengkulu, Indonesia: Educational Sciences and Teacher Profession (ICETeP 2018) accessed in September at https://www.atlantis-press.com/proceedings/icetep-18/55915469.
- 34. Wong, C.K.H., Wong, J.Y.H., Tang, E.H.M., Au, C.H., Lau, K.T.K., Wai, A.K.C. (2020). Impact of national containment measures on decelerating the increase in daily new cases of COVID-19 in 54 Countries and 4 epicenters of the Pandemic: comparative observational study. Journal of Medical Internet Research, 22(7), e19904. DOI: 10.2196/19904.
- 35. ***Educated Romania [România Educată. Proiect al Președintelui României] (2020) accessed in September from http://www.romaniaeducata.eu/wp-content/uploads/2021/07/Raport-Romania-Educata-14-iulie-2021.pdf.
- 36. ***EU (2016). General Data Protection Regulation, Retrieved in 29 September 2021 from https://eur-lex.europa.eu/eli/reg/2016/679/oj

37. ***Unicef (2020). Recomandări pentru începerea anului școlar 2020-2021 în condiții de siguranță, cu promovarea educației incluzive de calitate, pentru toți copiii din România, accessed in September at https://www.unicef.org/romania/media/3176/file/