

Role of Outdoor Education in Children Research Skills Development

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Abstract: Article is about children research and cognitive skills development in Riga pre-school education institution „Madariņa” where outdoor education is integrated in its curriculum. Outdoor education helps in children physical, mental, emotional, social and intellectual development. Close connection with nature also helps to benefit from nature and its beauty. The aim of study was theoretically and practically investigate role of outdoor education in development of children research activity in pre-school age (3- 7 years). The following problems were investigated in order to make conclusions for further development of outdoor education activities: children research skills development, methodology used by teachers in order to facilitate children research activity and their interest in research activity. Following research methods were used: observation of children play activity, parents’ survey in order to make out parents attitude to children outdoor activity, learning in nature and evaluation of teacher’s work in the development of children research activity and teachers’ survey with the aim to investigate teachers’ knowledge about research activities and used methods in outdoor education. Parents’ survey results reflect that parents are very interested in children research activity development, but it also reflects that parents need additional information in this field. Teacher survey results shows that academic staff has good knowledge about children research activity and its role in their holistic development. Analysis of the results approves the fact that pre-school education institution „Madariņa” is progressing well in the implementation of outdoor education.

Key words: outdoor education, outdoor environment, research skills.

Introduction

Our society are getting more urbanized in the latest years – it’s attention is more turned to visual media and verbal advertisements, IT technologies, but it is moving away from the nature, from nature as a place of action and education. K. Constable draws attention to the fact, that “children are losing touch with their natural environment and that they do not know about the impact humans are having on the area we live in” (Constable, 2015, 2). J. Ward indicates that children nowadays are in a hurry, they are busy with their electronic devices and they have too many distractions (Ward, 2008).

More and more our ways of learning are getting too theoretical and they are oriented to the acquiring of text, think B. Molander in book “Outdoor Education” written by L. U. Dahlgren and A. Sczepanski (Dālgrēns, Ščepanskis, 1997). S. Amonasvili (Amonašvili, 1988) indicates, that with a mind child can only understand and acquire knowledge, but if he or she uses hands – on approach – the knowledge gets alive, but if the studying is done by heart, then the knowledge will be positive transformation.

People of our century have forgotten to get a pleasure from nature and its beauty in all seasons. The main problem is that we are reserved in discovering process of beauty and joy of being in nature to our children and that is why their emotional development is suffering. Nature can offer us many answers to our questions, it is necessary to explore them. There are changes for a whole year running in nature. Children development in natural environment is observed in all areas: physical, mental, emotional, social and intellectual. R. Louv (Louv, 2008) in his exciting book “*Last Child in the Woods: Saving Our Children From Nature – Deficit Disorder*” about children interaction with nature writes: “*Nature inspires creativity in a child by demanding visualization and the full use of the senses. Given a chance, a child will bring the confusion of the world to the woods, wash it in the creek, turn it over to see what lives on the unseen side of that confusion.*”.

Nature facilitates children will to understand environment, to make wonder about it and develops his/her mental growth. It is very important to use effectively this diversity in children sensor, intellectual and emotional development. Children explore environment in cognitive process. In order to stimulate their cognitive development it is necessary to act practically in outdoor environment.

The aim of article – theoretically and practically investigate role of outdoor education in development of children research activity in pre-school age (3 - 7 years).

Methodology

Activities in outdoor environment facilitate children holistic development. For our research the definition of outdoor education is important. P. Ford has formulate definition of outdoor education: „ The concept of outdoor education indicates venue of learning environment (any outdoor environment), topic of learning (natural and cultural aspects of certain environment) and aim of classes (to get knowledge, skills and form understanding about local environment)” (cited in Dālgrēns, Ščepanskis,1997, 27).

Outdoor environment is important study aid, which helps to achieve aims of educational program. Children practise to understand and analyse different activities, phenomenon and processes in nature with practical methods. Outdoor education includes qualities, which doesn't have for indoor environment. It offers possibility to join thinking, theoretical knowledge and empirical knowledge. Children skills to investigate are developed indirectly, they become explorers. It is very important that children get information not only about nature, environmental problems and outdoor life, but also are doing investigations outdoors. It makes children learning more authentic and more meaningful. Outdoor classrooms and outdoor learning are focused to the use of nature as teaching resource. "...landscapes can serve the needs of the child to play in natural areas among the plants and in the soil, to play creatively and safely, developing through their own resources, their own environmental awareness" (Millington, Nuttal, 2013, 9).

Professor D. Lieģeniece (Lieģeniece, 1999) points, that J. A. Comenius in his theory indicates holistic approach – it is necessary to organize educational process by development of children intellect, morale, hands movement and emotions, will and physical condition. It is very important, that children not only can listen about nature, environmental problems and outdoor life, but also can explore outdoor environment, which makes learning more meaningful. It is possible to do interesting experiments and investigations about air, soil and water, also explore living creatures. This is good way to stimulate children to be active, for example, to make fireplace, to form flower-beds and vegetable garden, to care for apple-garden. These activities offer many possibilities to direct children communication and socialization in outdoor environment.

Research has been done in Riga pre-school education institution „*Madariņa*”. Research participants were 12 pre-school teachers and speech therapist, 134 children of pre-school age (3-7 years old) and their 60 parents.

Research reflects the situation of outdoor education implementation in Riga pre-school education institution „*Madariņa*”. The following problems were investigated in order to make conclusions for further development of outdoor education activities:

- children research skills development;
- methodology used by teachers in order to facilitate children research activity;
- children interest in research activity.

Following research methods were used:

- observation of children practical activity in nature;
- parents' survey in order to make out parents attitude to children outdoor activity, learning in nature and evaluation of teacher's work in the development of children research activity;
- teachers' survey with the aim to investigate teachers knowledge about children research activities and used methods in outdoor education.

Results and discussion

The first step in study was to investigate children research skills. A child and his/her needs are the main in pedagogical process. Child's needs facilitate child's development. By respecting child's needs we can influence his/her successful life development.

Observation of children practical activity in nature shows, that 50 % of children can find interesting objects to explore outdoors. They can organize themselves for research activity, because they have well developed skills and knowledge about that. Teacher's role is very important in facilitation of children's research activity. It should be planned in their everyday activities because research activity stimulates curiosity, attention development, and skills to notice causal relationships and make conclusions.

The aim of parents' survey was to get to know their thoughts about children activities in outdoor environment and educational process in pre-school. Their opinion is very relevant, because it helps for teachers to plan their pedagogical work and also cooperation with parents.

Survey results shows that parents from Riga pre-school education institution „*Madariņa*” understand the influence of research activity in nature. It is evident that parents encourage children outdoor activities and that is one of the reasons why they have chosen pre-school education institution with outdoor education activities integrated in the curriculum. Parents not only encourage these activities, but they (33 %) also take active participation in outdoor activities of pre-school education institution „*Madariņa*”. 50 % of parents use to participate seldom, but 17 % do not participate at all (Figure 1).

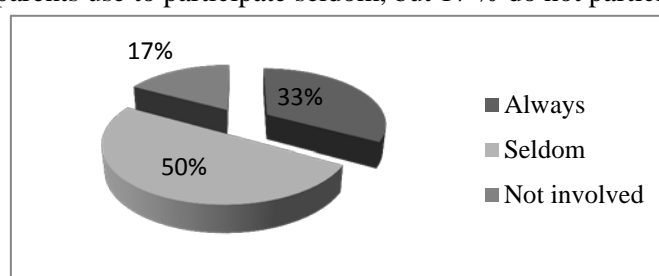


Figure 1. Parents participation in pre-school outdoor activities.

There are some outdoor activities which is a tradition in pre-school education institution „*Madariņa*”. Children together with parents plant flowers in spring, at graduation party families plant trees, shrubs and other plants. Outdoor education also includes physical exercises which are realized in „Family day” activities.

Successful educational process very much depends of teachers' attitude and knowledge. Teacher helps children to explore outdoor life by explaining and raising interest about different phenomenon in nature. Well-developed research skills help children better solve different problems in their everyday life, because they can find solution to different problems by themselves.

Outdoor environment always offer changes which can be defined by observation. This is one of the best ways to develop children observational and cognitive skills. Activities which are used indoors can also be used outdoors. Then they make stronger influence on children senses and this is very effective way of learning. Being outdoors is also positive emotional experience which stimulates children cognition and willingness to explore nature more and more. By exploring children make their own discoveries about natural phenomena and this is a way to get new knowledge for the whole life.

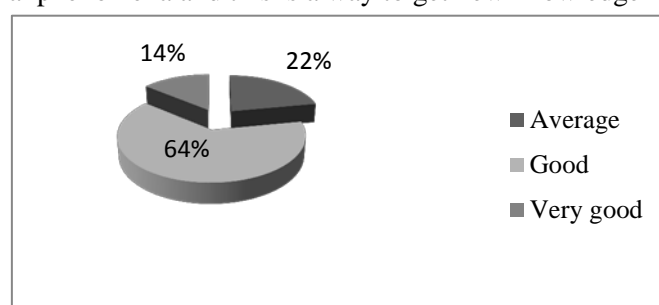


Figure 2. Teachers theoretical knowledge about research activities.

Data reflects (Figure 2), that 64 % teachers from pre-school education institution „*Madariņa*” have good knowledge about research activity and its role in children development. 22 % of teachers think that their knowledge is average and should be improved, but 14 % evaluate their knowledge as very

good. None of pedagogical staff members evaluate their knowledge as weak. It means that children can get good support in doing research work outdoors in pre-school education institution.

Teachers are very interested by doing outdoor activities as institution has really excellent infrastructure for that. There is a fire place, very large apple – garden, vegetable garden, well planned flowerbeds, which are blooming from early spring until late autumn. Children have excellent possibilities for different sport activities, because institution has very wide play-ground and also small stage for cultural activities. There are also parks and Botanical garden outside the territory where children use to go to do different outdoor activities. Institution is in Riga, not very far from the city centre and serves as excellent place for city children to be in environment which is nature friendly and also with very professional staff which is very interested to use all outdoor elements in order to facilitate children holistic development.

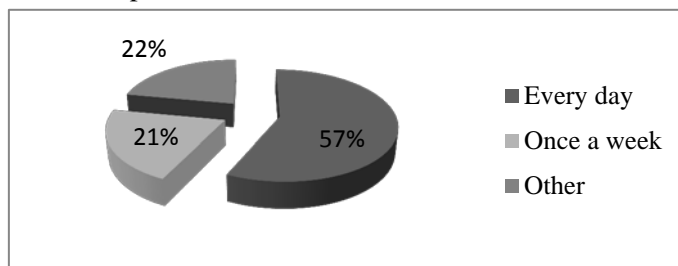


Figure 3. Use of theoretical knowledge in pedagogical process.

57 % of teachers use their knowledge about research activities every day (Figure 3), 22 % use their knowledge once a week, but 21 % of pedagogical staff members use them periodically according to the season, children needs and thematic planning. It is evident that teachers in pre-school education institution „Madariņa” have good knowledge in children research skills development.

The most popular method teachers use in outdoor education (Figure 4) is long – term observation – 27 % of all methods used in pedagogical process in pre-school. Teachers also use short – term observation (19 %), practical method and discussion - 15 %. Experiments (10 %), visual method (8 %), excursions (4%) and demonstration (2%) are less popular methods in pre-school in outdoor education. It can be concluded, that teachers use large variety of methods and it helps better to explore nature and also stimulates children research activity.

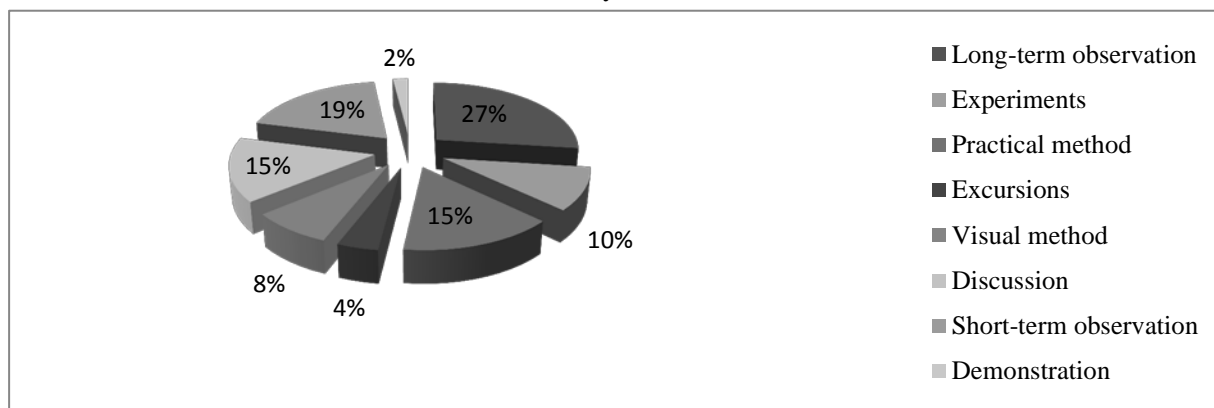


Figure 4. Methods used by teachers in outdoor education.

Children learn to understand and analyse events and processes in nature by using methods mentioned above. Outdoor education has many advantages in comparison with education indoors. Children can develop their research skills in nature indirectly, because they are interested to explore the world. It is very important that children not only are listening stories about nature, environmental problems and life outdoors, but also explore nature. It makes their learning meaningful. Outdoor education helps children to find answers to many questions, only it is necessary to find them by exploring the nature together with professional teachers and encouraging parents which can be the best facilitators in this exciting learning process where children simultaneously can develop their physical, mental, emotional, social and intellectual areas.

Conclusions

- Parents' survey results reflect that parents are very interested in children research activity development, but it also means that parents need additional information in this field. Parents encourage children activities outdoors because they are very necessary to their health and holistic development, but parents also would be interested to get more information about outdoor education. Survey results also reflect the fact that majority of parents are active in cooperation with teachers but there are some parents which are resistant. That is why it would be necessary to find the reason why they are so reserved. Still they think that activities offered in pre-school education institution „Madariņa” are very positive for children development.
- Teacher survey results reflects that academic staff has good knowledge about children research activity and its role in their holistic development – teacher consider children needs and knowledge, they elaborate curriculum, methods and teaching aids in accordance with children development.
- More than a half of all pedagogical staff members use methods for children research skills development in everyday activities. The most popular pedagogical method is observations, but excursions and demonstrations are used not so often. It would be necessary to include excursions and demonstrations in the curriculum of pre-school institution in order to facilitate children holistic development.
- Analysis of the results reflects the fact that Riga pre-school education institution „Madariņa” is progressing well in the implementation of outdoor education. It is necessary in pedagogical work to continue to develop children independent research skills, to notice causal relationships and make conclusions by gaining new experience and knowledge.

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