

Pre-school Age Child Treatment and Awareness about Conservancy of Nature

Agrita Taurina Dr.paed.

Riga Teacher Training and Educational Management Academy, Latvia,

agritataurina@inbox.lv

Abstract: The development of modern science and technology has completely changed the environment and public and interpersonal relationships. Natural resources are used more intensively than ever before. Human impact on nature has reached global dimensions. This means that in the future much more attention should be paid to the rational use of natural resources and it is encouraged already during the pre-school aged child's development to raise their understanding and attitude towards nature conservation. Children are open to and interested in exploring nature, learning about our national traditions and folklore heritage on the conservancy of nature and work ethics with the guidance of skilled teachers and parents. The aim of the study is to get theoretical and practical knowledge about promotion of treatment and understanding of nature conservancy by pre-school age children. Research is based on the analysis of theoretical literature and the empirical method – observation of 46 children of mixed ages (4-7 years) during the pedagogical process in Riga pre – school education establishment. During the survey on the environmental education and development of responsible attitudes of children carried out by 42 educators, the well and less well known topics were found out. We believe that raising awareness and attitude of pre-school aged children is of great importance for the public.

Keywords: pre-schooler, education, environment, ecology.

Introduction

The nature around us is our home, which we use from the first days of our life. It is exactly because of this that we need to take responsibility for how we leave it for the next generations to inherit. It is the basis for our and our children's quality of life. We can preserve, protect and improve it, or we can recklessly change it while thinking of short-term consumerist gains. We often take nature for granted and fail to appreciate it while producing and consuming ever more, but natural resources are not infinite. How does one foster healthy habits and true understanding about the preservation of nature and conservative behaviours from an early age? What resources can be used in pre-school to purposefully teach about nature? How to improve pre-school teachers' skills towards fulfilling eco-school projects in cooperation with parents and public organizations? The urgency of the matter is determined by the need to develop skills, responsibility and competence of action for sustainable development at an early age.

A. Špona (Špona, 2006) believes that childhood impressions, habits and self-regulation are often the factors that determine an adult's style of behaviour. It is formed through:

- perception of social reality,
- personal understanding,
- emotional trials.

Behaviour is the expression of attitude through action. Positive behavioural habits formed in childhood, enhanced through experience, are preserved as values in one's life (Špona, 2006, 84).

A group of authors from several countries around the Baltic sea have carried out the project „*Education for change*” (Iglītība pārmaiņām..., 2004). Project's authors believe that ecological sustainability means society needs to realize that the basis of its existence is tightly linked to the survival and wellbeing of other species and natural processes in their habitat. Knowledge in Ecology broadens the understanding of morality of actions, adds insight into interdependence of seemingly independent natural processes, and highlights our duty to reckon with all living things. Understanding the model of a unified ecosystem is at the basis of Ecological sustainability: all of Earth's ecosystems are interdependent, protectable and maintainable. The Earth is viewed as a self-regulating system, which denies the importance of any of its constituents over any other because they are all vital.

When fulfilling principles of a sustainable development in practice it is necessary to promote, facilitate and develop our society's environmental consciousness, civil participation, and an environment-friendly lifestyle (Izglītība pārmaiņām..., 2004, 12).

The aim of the study is to get theoretical and practical knowledge about promotion of treatment and understanding of nature conservancy by a pre-school age child.

Research hypothesis: Pre-school aged children's behaviour related to and understanding of nature preservation carries out better if during the pedagogical process children are ensured active participation in conduction of projects and are introduced to inherited folk tradition and folklore about the preservation of nature and virtue of work.

Methodology

Research is based on an analysis of theoretical literature and the empirical method – observation of 46 children of mixed age (4-7 years) during the pedagogical process. The study was conducted in Riga pre – school education establishment X during years 2012-2014. During the survey on environmental education and development of children's responsible attitudes carried out by 42 educators, the well- and less-known topics were explored.

Results and discussion

Necessity for environmental education is dictated by changes in the global socioeconomic development. These changes are manifested as intensification of nature degradation processes. Nature is threatened firstly by people's lack of knowledge and environmental education, and secondly by egoism. It is exactly environmental education that could replace this lack of knowledge with knowledge and change attitude towards the environment (Stola, 2001, 14).

L. Priede points out that problems of ecological nature are not just problems of our country but the entire world. She believes that the creation of an ecological culture is already important at pre-school age, because that is when a person's perceptions of good and evil, beautiful and ugly are formed; the person also begins to grasp life's uniqueness (Priede, 2007, 43).

Thanks to environmental education each person can acknowledge the impact of his/her actions on the state of the environment (environmental quality), can understand the essence of sustainable development and try to ensure it. Environmental education usually offers various activities – projects, events, excursions, games and plays. Gradually children's and adults' understanding of conservation of natural resources is enhanced. In turn to preserve natural resources one needs to think about choice of action.

Authors of the project „*Education for change*” (Izglītība pārmaiņām..., 2004) explain that Ecology is also a natural science which encompasses knowledge about the different life forms that inhabit our planet and their interrelations with each other and the ecosystems around them e.g. plant-life ⇔ soil ⇔ freshwater ⇔ etc. Both environmental education and sustainable development education hold great potential. Environmental education includes raising awareness and gaining new perspectives, values, knowledge and skills; this is both a formal and informal process, which includes changing the general attitude towards more support for an ecologically sustainable environment (Izglītība pārmaiņām..., 2004, 12).

L. Priede (Priede, 2007) believes that ecological culture is made of three interlinked components (Figure 1).

The values of life and how nature is perceived are developed in early childhood years. Unfortunately today a lot of children grow up disconnected from nature. Therefore you would not expect the child to care about nature and use his/her skills to study and save nature. As if it would happen without any effort, on its own or that the teachers will most likely promote this. Experience shows that in schools children make observations indirectly, mainly through the means of images or video recordings, which doesn't encourage developing skills, customs or empathy. In more developed countries such as Scandinavia they have a practice called outdoor education.

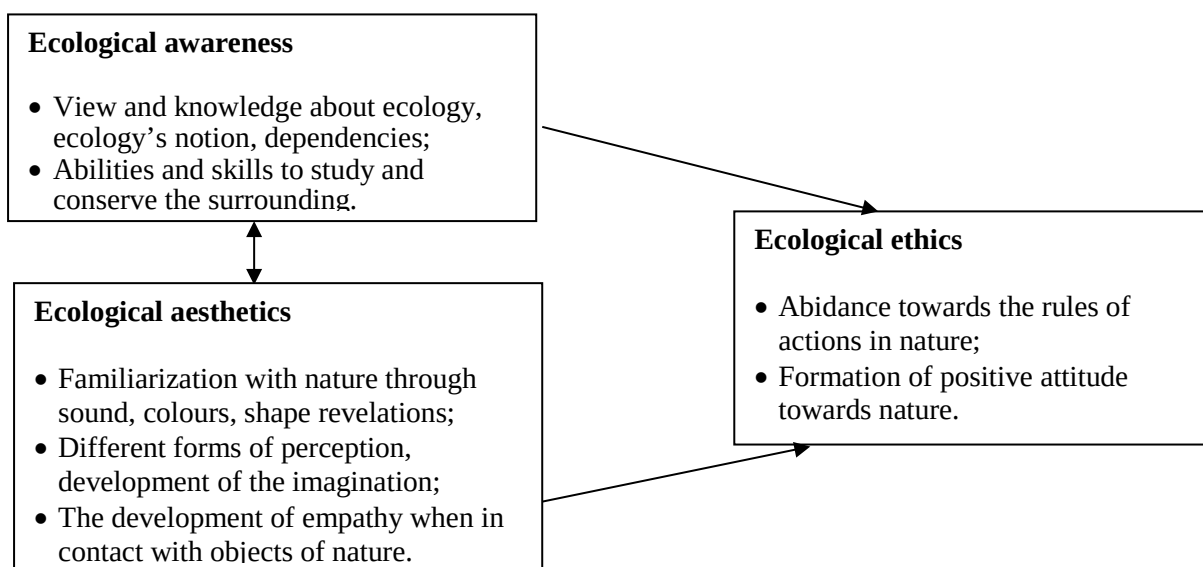


Figure 1. Ecological culture according to L.Priede (Priede, 2007).

The outdoor pedagogic and educational perspective is embedded in the hearts of Norwegian people and their folklore, but it is still not profoundly rooted in the public Nordic education system. The Nordic traditions of outdoor recreation and outdoor methodology are, however, firmly rooted and alive in the Norwegian folk high – school movement. Similar in Sweden in the recreational leader training at folk high – school level. Based on our experience as teacher trainers and researchers, we believe that physical reality should be the basis for learning to a much greater extent. In this perspective, beside the written cultural heritage, thematic activities in the tracks of nature's forces and Man's activities in the landscape become important learning exercises: woods, meadows, lakes and streams, crofter's holdings and ruined cottages, stone walls, and historic and present uses of land (Dahlgren, Szczepanski, 2008, 24).

Riga Teacher Training and Educational Management Academy collaboration project's „*The sun*” (Brīvdabas pedagogijas..., 2014) partner is the Centre for Outdoor Environmental Education at Linköping University which is represented by Anders Szczepanski. The first two project parts took place in Vidzeme (a region of Latvia), where the organizing and ideas were carried out actively by Riga Teacher Training and Educational Management Academy Cesis branch superior M. Raudziņa. The third part was conducted so that the outdoor education ideas would be spread wider throughout the Latvian pedagogical circle. Outdoor education was studied through joining theory with praxis. An integrated approach towards advancing child development was implemented; physical and mental games as well as stress reduction techniques were acquainted with. Immensely important and interesting were the practical studies as well as the discussions and group work which involved questions about nature. A. Szczepanski (Dahlgren, Szczepanski, 2008, 24) photography collections about the experience in Sweden convinced and encouraged to use the outdoor education ideas. Pedagogues improved their understanding about how they should conduct interactions with children – focussing more on a child's perceptual and emotional experience and the motivation to participate

Latvian pedagogues' enthusiasm to participate in the project was noticeable, because further-educational courses were attended by more than sixty pedagogues from twelve of Riga's pre-school education establishments along with two regional institutions from Riga and Cesis as well as three of Jelgava city's pre-school educational establishments. The Project included two schools and three higher education institutes – Latvian Academy of Sport Education, University of Latvia, Riga Teacher Training and Educational Management Academy.

It is very important for every project participant to evaluate and search for their own revelations which they have gained through solving a specific pedagogical situation, which is why at the end of the project an inquiry and a discussion was made about the following questions.

- How did the offered organized activities help me understand the idea of outdoor education teaching?
- What are the initiatives which I gained that I can use in my daily work?
- Will these ideas will be difficult to implement in my daily work?

Answering these questions 81% or 34 teachers from 42 respondents thought that a child's activities need to be coordinated with the parents' permissions, however unfortunately they have differing opinions on the need for outdoor education. A problematical aspect is also mentioned – the attitude of the teachers, even to the point of idleness and incomprehension.

On the other hand, whilst studying opinions about the course process and topicality of the pedagogical idea it was discovered that 74% or 31 pedagogues considered that there is a clearly visible interconnection between nature and pedagogy. The attitudes of Latvian ancestors towards nature are well known from folklore materials. The pedagogues also showed approval towards movement games and agreed with the necessity to use practical project operating techniques for both pre-school children and an audience of grownups. Participants of further education courses willingly shared their thoughts and feelings: *"Fantastic that the activities happened not indoors but out in an open nature environment, it was so pleasant to feel the wind, rays of the sun and the smell of the grass. In Ebelmuizas park territory there is safety feeling, while running. Also falling over won't produce any worries about traumas."*

Another course participant's opinion, which expresses the need for implementing pen-air pedagogies: "I was convinced that more time needs to be spent outside. Not only during strolls, but also different activities need to be organized in the fresh air outside like speech development and mathematics. Truly many new ideas, interesting games."

Affective experiences are undervalued in our urban and artificial society. Who cares about an environment he is not bound to? Outdoor education as an alternative pedagogy and method gives us an opportunity to establish a kind of silent knowledge, a sensory experience where words are not enough. In school, learning is based mainly on texts (literary learning), and increasingly seldom on firsthand experiences. It is a methodological problem that we would like to solve with outdoor education. The fundamental idea is to create opportunities for concrete experiences in the outdoor classroom (Dahlgren, Szczepanski, 2008, 25).

From the Latvian doctors' society's 12 recommendations for a living healthy, wellbeing and a qualitative life we can see that it implies on three fairly important rules.

- Maintain the earth, don't pollute it! We don't own any other planets!
- Study – education signifies skills and abilities for staying healthy and living a long life!
- Get up, move and live! Climb the stairs, don't use an elevator! Run, swim or ride a bicycle for at least half an hour five times a week! Take part in sports at any age, compete! (Apiņa, Mozga, 2014)

Children at pre-school age develop attitudes and habits that stick with them for their entire lives, which is why it is important to involve children in meaningful and active labour within nature, to strengthen their health and to gain a well informed insight into the conservation of natural resources. If the parents and pedagogues confidently lead by example with their actions and attitudes in everyday life then the offspring is also motivated to repeat the seen experience and will gladly join in with their elders.

To encourage the development of a healthy lifestyle, habits and understanding of physical, emotional and mental growth correlations within a community, J. Hibber and J. Usmar (Hibberd, Usmar, 2014, 81) suggests to:

- take care of your body, feeling better physically will make you feel better mentally;
- incorporate exercise into your life: start a new class or modify habits to become more active;
- physical relaxation is an essential part of a healthy life – so schedule it in!

They have developed images depicting correlation between physical and emotional growth. There are strong links between how you feel emotionally and how you feel physically (Hibberd, Usmar, 2014, 76) (Figure 2).

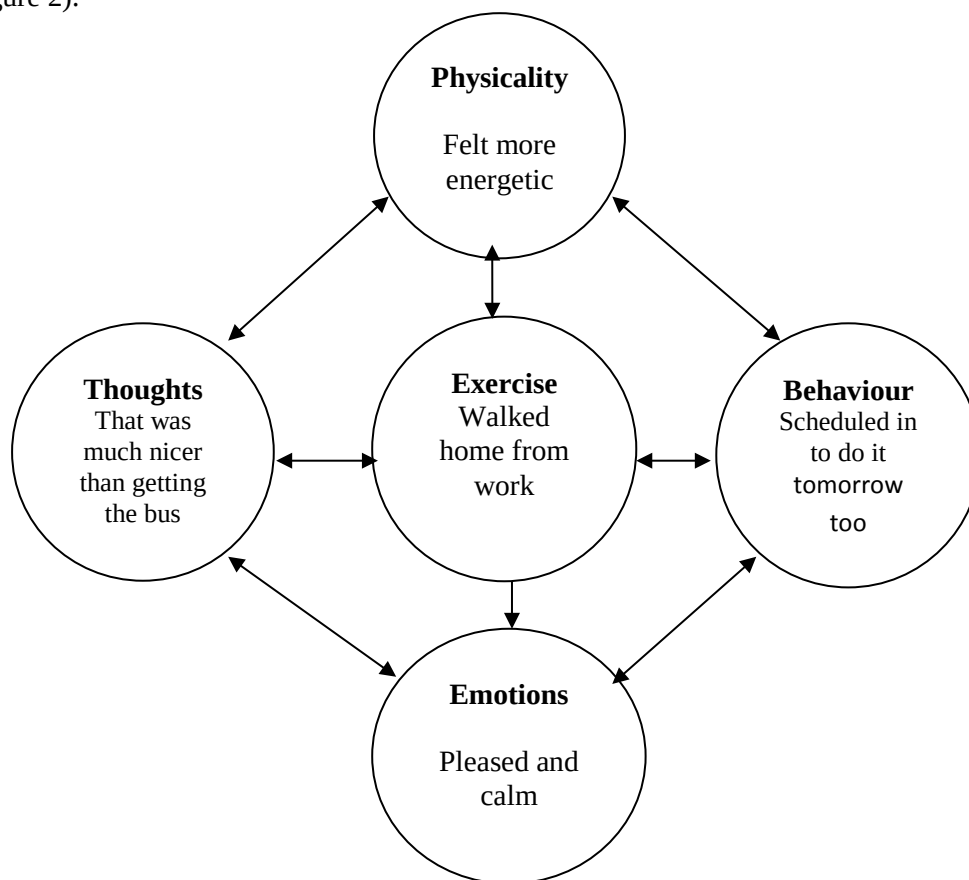


Figure 2. The physical mind map according to J. Hibber, J. Usmar (Hibberd, Usmar, 2014).

A. Pipere (Pipere, 2005, 7) explains that the roots of humans' perception of health might lie in the wisdoms of the elders and the folklore about diseases, their treatment and prevention. This knowledge might be a part of the cultural legacy which is passed on generation to generation.

I am convinced that the Latvian national legacy might be an important condition for a successful ecological attitude promotion, because the national Latvian song beauty is created even from roadside leaves or stems of grass, from the everyday work full of worries, from the bird-cherry blossoms or the whiteness of an apple orchard. Latvian national songs aren't imaginable without the concept of beauty and fairness. Flowers, meadows, songs of the birds, everything is in a green gorgeous dress of life.

Folk songs are a testimony for the huge observation skill that the Latvian people have along with the surrounding world and the understanding of our own deep feelings. Latvians have a large collection of folk songs about the woods, meadows, birds and animals. They mirror the love for our native land, equally shown are also the natural phenomenon contributions to the observation, deduction skills and development of imagination. A particular peculiarity and lifelines is gained even from lifeless part of nature (sun, moon, stars), while plants and animals are fully incorporated into the lifestyle and passage of humans. Folk songs' in-depth cognition is expressed about everything around us. It invokes to see an object not only from the businesslike perspective, but also to find the good and beautiful, worthy of admiration and imitation.

Riga preschool educational establishment X since 2012 has been a part of the Environmental education supported fund for the Ecoschool project. In the first year, evaluating the accomplished, Eco council noted that more attention was devoted to the development of the immediate surroundings, new plant bed implementation, different fruit-tree and vegetable cultivation, as well as tree and decorative shrub planting. Preschool education establishments in 2013 started work on juice box and milk carton gathering campaign „Sort the packages!” (Sulu un piena..., 2013) and continues with a promo “Hand

in waste paper for a repeated recycling!" and used battery gathering. Children are summoned to make posters about economizing natural resources and to mimic appeals to tidy up our surrounding. In this way, children are being accustomed to be responsible and thoughtful. This happens in a meaningful pedagogical situation so that the kids could successfully acquire both reading and writing skills and to cultivate the concept of conserving nature. Preschool teachers together with the children made posters – circular activity diagram "*Recycling of waste*". This way kids refine their understanding of the sorting of product packaging. The preschool environment is supplemented with self-made toy, where the sorted item names are written on game cards. The kids while participating in the game will have to read and analyse the situation.

As a gratitude for the support of teachers: Olita Kalēja, Agnese Kolmane, Linda Šikmkus, Edīte Borska – Ivanovska, Baiba Gribkova, Jana Stalgēviča, Ineta Mārtinsone, Ieva Vīksne, Ilona Spole, Guna Andrejeva, Ilze Lutkovska, Silva Jakobsone, Maira Sudraba, Māra Blāķe, Aija Strazde un Dzintra Kažemaka in the assisting of making the game materials and posters - the preschool educational establishment has received the paper of recognition and gratifying words for taking care of the surrounding environment and handing in waste paper for recycling from Līgatne Paper factory (Papīrfabrika Līgatne, 2015). The development of the immediate surrounding was carried out creating the first Ziepniekkalns barefooted trail. Both the parents and the children took part in the trail's creation. Kids were the first experts, who tried out the created trail's offered possibilities. Together with the trail, multiple self-made birds' nests were put up in the surrounding area of the establishment.

During the survey on environmental education and development of responsible attitudes among children carried out by 42 educators, the well- and less-known topics were explored. It turned out that during the games, strolls, and excursions, more attention is focused on the subject – a healthy lifestyle. While introduction of the subject of maintaining a clean environment and sorting refuse proved their importance mainly by allowing the child to perform practical activities which are also socially important. Less popular are the subjects of climate change and energy saving, as at pre-school age such kind of general information is difficult to understand. It turns out that children are excited by the topics on the importance of forest and water. These topics are preliminary planned by the pre-school educators and realised in targeted collaboration with the children.

The majority – 86% or 36 pedagogues from a total of 42 respondents have admitted that children's understanding in environmental education is best fulfilled using practical actions, demonstrations, experiments and purposefully organized observations. All pedagogues are unanimous that the most important method in preschool is playing games. Whilst playing a child strengthens and enhances the acquired views on any topic of environment education, strengthens skills, expresses personal attitude towards the essence of matter, traditions and habits.

The theme of a healthy lifestyle was made topical in 2014 in cooperation with the society „Latvian Cyclists' Association” (Latvijas Riteņbraucēju apvienība, 2015) and parents. So families were invited to take their child to the pre-school on a bike. In terms of improving the pre-school environment different solutions were sought for bike parking as well as for safe riding.

We can state that from a parents' perspective the most support went to the campaign organized by Environmental Education Fund's and Eco-school Program called „*Healthily eaten!*” (Solis pretī..., 2013). In Riga pre-school establishment X it was rendered through the action day „*Let us prepare healthy food from Latvian fruit, vegetables and be healthy!*”. Five and six year old children as well as the very young ones took part in this activity of exploring and preparing healthy food. Patient completion of the begun work, setting the table, and polite behaviour were thought of. Besides those the event was dominated by creating understanding about products important for health – gifts of the Latvian autumn. Children's self-made cookbooks, food recipes as well as interest to get acquainted with journals publishing food recipes contributed towards improving reading and writing skills.

We are certain that in order to enrich pre-school aged children's social experience it is important to organize events which develop both topics of work ethic and ecological attitude development. Because of this during folklore events „*I walked through a silver grove and did not break a branch*”, „*Where are you driving small birds?*” children evaluate various peoples' attitudes towards nature through

singing, dancing, playing games, and telling folk tales. To provide information on the event children prepared a poster and wrote the event program.

Getting to know and preservation of the nature surroundings is important, especially in city pre-school establishments. Children in a city environment often grow up distanced from nature, without understanding its value or participating in planting of trees. City kids much more often see cars and workers making roads or new builds, but less frequently situations where someone is taking care of flowerbeds or planting plants.

Due to this the parent's duty to introduce a child to nature, lead a child into the green flowering, or snow-white nature, where a child would experience the beautiful and irreproducible closely. So it is important to secure children an opportunity to get acquainted with various natural objects, perceive them through heart and mind so as to love them for the rest of their lives.

If a grown-up does not feel the nature's healing influence, is indifferent to the environment he/she lives in, and does not try to look into it, does not notice the beautiful around himself/herself, in the nature, then the child loses a lot, does not feel himself/herself as a part of nature, grows up indifferent towards it. In such a situation the child perceives nature's beauty with difficulty, because he/she is not encouraged to turn to it. He/she has not developed the ability to perceive, feel and understand to evaluate nature's uniqueness. Unfortunately this can reflect in a child's future development and his/her attitude towards the surroundings.

So it is very important for a child's development to have a considerate and understanding parent, who can himself/herself perceive, feel and discover the world of nature. Adults need to encourage children to see beauty in nature, their vicinity, and to also create beautiful hand work. The parent's tone of voice and attitude towards the given action or thing is important, because the child is trying to determine if they parent's feelings are genuine in every situation. Only with affectionate manner can children be encouraged to be open and enjoy the beautiful. As a result children feel understood and equal partners not only among peers, but also together with grownups.

S. Nikolaeva (Николаева, 2000, 5) points out that already at pre-school age an important aspect of children's ecological upbringing is creating an understanding how living creatures are principally different from inanimate objects. Another aspect is creating skills of taking care of plants and animals, a child's participation in ensuring the conditions required for life and growing. She believes that if children are not given an opportunity to take care of potted plants, water the flowerbed and trees during the summer heat, if the child does not participate in caring for the aquarium or the Guinea pig cage and animal feeding, then initial ecological understanding of nature does not form.

Pre-school aged children's attitude towards and understanding of nature preservation was understood through observation of their practical activities in nature project events, as well as daily animal care activities. Criteria for the observation were determination of action, independent and appropriate choice of tools, ability to evaluate the accomplished, keenness to find information, questions asked and answered.

Pre-school education teacher Sintija Teicana has summarized children's phrases and talks about observations in nature. We will give some examples, for instance, early in the morning whilst standing at the window a 5 year old girl A is talking to a 4 year old boy R:

A: „When we come to the kindergarten it is night, and when we leave the kindergarten it is night again. It must be Winter!”

R.: „Well, yes!”

It is possible that previous conversations with adults have affected children's understanding of natural processes.

Another conversation between 4 year old boys T and K. They are walking in the yard and interested about the life of worms living in the soil:

T.: „Did you find one?”

K.: „No. The worms have gone to sleep their big sleep, so all have disappeared.”

Children are interested both by living things and materials in nature, they can be acquainted with, plaid with, but to understand the rules of nature an adult's opinion and ability to have conversation with the child comes of use.

Observing children's actions using previously mentioned criteria and analysis of children's phrases and conversations allows to conclude that 13% or 6 out of a total of 46 respondents had an inadequate or partial understanding of nature conservation, impatience, clumsy skills in practical work, lack of desire to evaluate experience. 22% or 10 children were characterized by a steady interest in nature preservation as well as determined, self-sufficient actions, taking care of potted plants and animals. An average level of understanding was observed in 65% or 30 children's experiences – children happily take part in actions started or suggested by adults, ask questions, take part in conversations, but a determined, self-sufficient, persistent action and patience to endure difficulties was lacking.

Conclusions

- Four to seven year old children's development of attitude towards and understanding of nature conservation is tightly connected to their applied work. A child ending up in a meaningful relationship with nature, taking care of pets, decorative plants and taking part in cleaning and improving works to the surrounding nature;
- Latvian natural tradition and folklore legacy mirrors the love towards the native land, bindingly describes different natural occurrences, which contributes for observation and reasoning skills, the virtue of work, developing the imagination of a child and is important for realizing folk social events about preserving nature;
- Pedagogue inquiry results show that – a healthy lifestyle, improving the immediate surroundings, maintaining a clean environment and sorting used materials so that you would get to know nature, are popular and well acquainted themes. Whereas less popular are the themes include climate change and energy conservation – in this regard more improvements need to be made with practical examples; more experience exchange needs to be made;
- Even though pedagogues express that the parents have different opinions towards open-air pedagogy, however embracing the work of eco – school project, as well as supporting a healthy lifestyle's incorporation, the parents value the preschool educational establishment initiatives positively. The parents agree that nature education along with education's long-lasting developments are meaningful contributions to the society's life and is aimed towards the economization of natural resources and creating a responsible attitude for childhood.

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