

The review of studies on environmental awareness of preschool children in Türkiye

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ABSTRACT

With industrialization and urbanization, people increasingly distanced themselves from nature and this affected children and pre-school children the most. It has become a necessity to give nature awareness to preschool children who have to study in boring and closed areas. In this study, what was taught to preschool children about environmental awareness in Türkiye and the main articles evaluating this subject were reviewed and evaluated.

Keywords: Preschool, environmental awareness, kindergarten, education, environmental education.

Türkiye'de okul öncesi çocukların çevre bilinci araştırmalarının incelenmesi

ÖZET

Sanayileşme ve kentleşme ile birlikte insanların doğadan giderek uzaklaşması en çok çocukların ve okul öncesi çocukların etkiledi. Sıkıcı ve kapalı alanlarda çalışmak zorunda kalan okul öncesi çocuklara doğa bilincinin kazandırılması bir zorunluluk haline gelmiştir. Bu çalışmada Türkiye'de okul öncesi dönemde çocuklarına çevre bilinci konusunda ne öğretildiği ve bu konuyu değerlendiren başlıca makaleler incelenip değerlendirilmiştir.

Anahtar Sözcükler: Okul öncesi, çevre bilinci, anaokulu, eğitim, çevre eğitimi.

Introduction

Humans have lived together with nature and interacted with it in different ways since the day they existed. These interactions started with the search for food and drink and even shelter in nature in the early days, and this interaction began to have negative consequences with the delusion that the richness of nature was unlimited. As a result of the uncontrolled progress of industry and unplanned urbanization, nature was seriously polluted and worn out. Realizing their responsibilities towards nature to turn from this wrong way,

people began to train the society at a young age to teach about environmental awareness (Kaya et al., 2019).

Before moving on to the main topic about the education of preschool children on environmental awareness, it is useful to explain some keywords.

Education is a long-term resource that prepares people for a better quality life, and this process is divided into phases so that people can benefit from this resource more efficiently. The first of these stages and the most important one according to many educational scientists is pre-school (Yaşar, 2004).

Preschool is an early childhood program in which children combine learning some basic knowledge with play within the framework of an educational program run by professionally trained teachers. Children are enrolled in such education programs between the ages of three and six at the most, and those younger than three are sent to some other institution (such as a crèche or day-care centre) (Encyclopedia of Children's Health, 2023).

The environment is an element that has an important role in the process of people's participation in society and starts in the earliest period of their life. People take their basic habits and skills here and feel its effects for many years. One of the main subjects of pre-school education in most of the developed countries is environmental education. Environmental education can be defined as the education given to increase people's knowledge about the environment they live in and their sensitivity about the problems that may occur in that environment (Gülay & Önder, 2011).

The importance of preschool education

Philosophers and researchers, who understand the importance of preschool education in the world, have recommended or applied different methods and practices for their education since the first periods of history. The most important of these philosophers and researchers are as follows: Socrates (470-399 BC), Eflatun (Plato) (427-347), Aristotle (384-322), Erasmus (1467-1536), Jean Jack Rousseau (1712-1778), Owen (1771-1858), Freidrich Froebel (1782-1852), and Piaget (1896-1982).

In an age when the importance of education could not be grasped much, Plato believed that people should receive education with their peers from the age of 3 onwards. Aristotle suggested that children of this age should be educated through games. Jean Jack Rousseau argued that the use of violence should be banned in the education given to children at this age. Pestalozzi opened the first preschool institution in history, which he called "Neuhof". Owen, on the other hand, evaluated the preschool education institution from an environmental perspective and established a preschool institution for the children of the factory workers. Froebel launched the first Kindergarten, meaning playground for children aged 3 to 6, in 1816. In this school, children were listened to music and different activities were held with them. Montessori established a nursery for the first time in 1898, and this school for preschoolers was adopted by many Western families. (Karaca, 2018:28-29). The first children's house which is called Casa dei Bambini was opened by Montessori in 1907 (Kramer, 1976: 47). Piaget conducted scientific studies on the effects of early education on their spiritual development. Because of the death of many men in the I. and II. World Wars, there was a greater need for women in the industry. While they were going to work in the factory, their very young children were sent to Kindergarten or children's homes. Thus, pre-school education became widespread for some problematic reasons. In the 1960s, with the increased visibility of women in working life, different campaigns were launched to expand pre-school education. By the end of the XX.th century, pre-school education was now seen as a part of formal education (Karaca, 2018).

There are concrete reasons why the most important stage of education is the pre-school period. As a result of some researches, it has been revealed that the fastest learning age of a normal person is between 0-8 years old. It has also been proven that 50% of the intelligence development of a normal person is between the ages of 0-4. On the other hand, it is a fact that the skills and habits acquired by people during this period shaped the general lines of his life (Acun & Ertan, 1996; Oğuzkan & Oral, 1992; Yavuzer, 1999).

Preschool education in Turkiye

When it comes to preschool education in Turkiye, the education of children in the 0-6 age group comes to mind. This optional education is given in kindergartens affiliated to primary schools or in private kindergartens (Akçay, 2006).

The preschool education program in this country is a program for children aged between 36 and 72 months, enrolled in an educational institution and focused on their development. This program deals with the ability of children in a certain age group to take care of themselves, their emotional, intellectual, cognitive and language use abilities with a holistic approach. Within a program, the developmental ages of children rather than the calendar age are determined by scientific techniques and children of all levels are helped to reach the highest level of development possible.

Although this preschool education program is called a single program, it has a flexible structure and includes different details for each age group. Lessons learned are a means, not an end, and students do not have to worry about getting high grades or passing grades. Since the emphasis is placed on highlighting students' creativity and their willingness to discover new findings, unlimited freedom is given to teachers tasked with providing them. Students both play games and improve their problem-solving skills. Social values and universal moral principles are tried to be instilled in students. Families can also participate and support preschool programs.

The features gained by the students in the program are: reasoning initiative, problem solving ability, ability to relate the causes and consequences of events, the desire to communicate with the social environment, the awareness of taking responsibility and fulfilling those responsibilities, the drive for research, the desire for entrepreneurship and environmental awareness. These features are given to children in the context of the game, in which they personally participate.

Approximately 27% of 3-year-olds, approximately 37% of 4-year-olds, and approximately 40% of 5-year-olds participate in such effective and productive preschool programs in Turkiye (Atlı, 2013).

The environmental awareness of preschool children in the World

Studies on the topic have shown that environmental awareness in humans begins to take shape in the pre-school period, and the consciousness acquired at this age also affects some other characters and behaviors in the rest of life (Smith, 2001). And many scientific studies have been conducted proving that the education people receive at an early age is effective in making them sensitive to the environment (Palmer, 1995; Domka, 2004). On the other hand, there are many scientific studies proving that environmental awareness education has a positive effect on increasing the environmental awareness of preschool children (Manoli, Johnson, & Dunlap, 2007; Kopnina, 2013; Heimlich & Ardoine, 2008).

Realizing the importance of pre-school education, many developed countries have enabled new generations to start education at this age and have tried to teach them the most important subjects and lessons for life at this stage, which can be considered the beginning of life. It is a known fact that one of the most important aspects of human life is the environment. Living a life in harmony with the environment is closely related to the formation of environmental awareness.

For example, pre-school education in Spain has three pillars and other subjects are built on top of these pillars: communication, environment (social and physical environment) and personal identity and independence. There are 7 main areas of pre-primary education in Norway: numbers and shapes, society, religion and philosophy, nature and environment, art, health and finally communication. In Italy, the main subjects of the curriculum taught during the same period are: social environment and culture, exploration, finding ways of research, organizing, being productive, making direct contact with things and gaining experience, and finally establishing relationships with peers and adults (Atlı, 2013).

The main objectives of environmental education to be carried out in preschool have been determined as follows:

- To ensure that children of this age are sensitive to the environment and environmental problems.
- Children's learning about the environment and environmental issues in general terms
- To lead children to develop solutions for environmental problems.
- To encourage children's participation in studies on environmental problems (Haktanır, 2007).

Wilson (1996) summarized the things to be considered about environmental education to be given to preschool children as follows: Environmental awareness education should start by experiencing relatively simple practices in which children will feel safe. It should be ensured that they enjoy making these

experiences. Giving as much information as possible should not be the goal, but at the same time, the pleasure of living in nature should be given to them. Studies should be conducted on many emotions of children (excitement, desire to experience adventure, urge to explore new places). While training, care should be taken to use more than one method instead of a single method. During education, children should be made aware that they interact with all stakeholders of nature at the same time. Teachers should be a role model for them in this regard. Education should be given in a warm and friendly environment. They should be helped to learn about different cultures and perspectives. They should be helped to realize the beauties of nature. Trainings should not be held in closed areas, but should be intertwined with nature. This kind of training should be done in many courses, not just one. Trainings should be given in game format, not in formal and boring lecture format. Children should attend classes not only physically but also spiritually and mentally. Lessons should be taught based on analysis, not memorization. Children should interact not only with the soil but also with animals, water and plants during the education process. On the other hand, communication and interaction of children with each other in this educational process is also very important. Finally, families should be allowed to participate in this environmental education.

The environmental awareness of children in Turkiye

Both state and non-governmental organizations have carried out different studies in order to raise environmental awareness of children at all education levels in Turkiye. The three most important of these are:

Schools called "eco schools" are educational institutions established to raise environmental awareness for pre-school, primary and secondary school children. This project is implemented in 56 countries around the world and Turkiye is one of these countries. The aim of the eco-schools project carried out by the Turkish Environmental Education Foundation (TÜRKÇEV) is to minimize environmental problems and to increase the awareness of the society about the environment. TÜRKÇEV also carries out different studies for all schools to raise students who are sensitive to environmental problems.

Students enrolled in these schools first learn about environmental issues and then inform their families, local governments and non-governmental organizations about these issues and enable them to take action.

The core subjects taught in the first two years in schools enrolled in the program are: consumption habits, biodiversity, water, energy, garbage-waste and recycling. After two years, the following topics are focused on: organic agriculture, pollution (air, water, soil, noise and light pollution), transportation, climate change and global warming.

Another practice implemented in Turkiye in order to sensitize school-age children to the environment is the "Little Theme" project. Within the scope of the project, which was prepared in cooperation with the Ministry of National Education-TEMA foundation in 2010, it is tried to ensure that children spend more time in nature. As it is known, in the 21st century, children spend most of their time in front of the computer, not on the street, and this is harmful for their mental and physical health. Thanks to the Little Theme Project, students who spend most of their time in the garden and playgrounds learn not only by seeing but also by smelling, touching, hearing and feeling, and they can keep what they learn in their memories for a longer time (Çakır, 2016).

The research titled "The Effect of Environmental Education Based on Nature Experience on Perceptions and Behaviors of Primary School Students towards their Environment" conducted by Özdemir in 2010 is about whether the activities of students in nature affect their perceptions and behaviors or not. Özdemir carried out this study with the participation of students studying in Akyaka town of Muğla province in 2006-2007. A story was also written by the students who live in touch with nature and do activities in nature. At the end of the study, it was observed that primary school students were more sensitive to environmental problems comparing to the others (Özdemir, 2010).

With their research on environmental education in Turkiye, Demir and Yalçın (2014) summarized the studies on environmental education in the country and tried to deal with the issue in all its aspects. In addition, in the same study, the existing deficiencies about the subject were determined and some concrete suggestions were put forward on what should be done to eliminate the problems. The information on environmental education in all school books was emphasized and that information was criticized.

The environmental awareness of preschool children in Turkiye

In Turkiye, many projects have been carried out to create environmental awareness and increase existing awareness in preschool children, and many academic articles have been published evaluating these projects. The following are the most important of these articles and scientific studies:

Toksöz Barlas and Ogelman (2023) made a descriptive analysis of the master's and doctoral theses published between 2005 and 2020 in Turkiye related to education. According to the findings they obtained, the term most frequently used by those who wrote thesis in this field is "environmental education". In these theses, quantitative research was preferred rather than qualitative research, and the experimental model was used the most. Preschool children were mostly preferred as the sample group in the studies and these sample groups are usually between 0 and 50.

Genç and Karabal (2010) stated that the only way to ensure that individuals become environmentally conscious citizens is to educate them on environmental awareness at the earliest ages.

According to Yayla and Ülker (2014), especially the preschool period can be called as "magic years" in that the behaviors they will acquire in these years will be permanent and shape their future lives. Başal (2015) drew the limits of environmental education that would probably be given to children. According to him, an education to be given to pre-school children should be based on love for nature and avoidance of behaviors that would harm it.

Özkul (2018) conducted a qualitative research to determine how children in the age group of 4–5 define environmental problems, the contribution of schools to their formation of environmental awareness, and whether there is a difference in thoughts about environmental awareness among children in a study he conducted in two kindergartens in the city of Izmir. Pictures were shown to them and their feelings and thoughts about the pictures were noted. According to the results obtained, the most important environmental problem perceived by children in this age group is environmental pollution due to behavior (throwing garbage on the ground, etc.). According to them, the main cause of environmental problems is selfish human behavior.

Körükçü and Güngör (2021) examined the relationship between the attitudes of children aged 60-72 months towards the environment and their ability to take an attitude on this issue. 151 children attending pre-school education institutions in Merkez Efendi and Pamukkale Districts of Denizli Province voluntarily participated in this study. As a result of the research, they found a very weak (statistically insignificant relationship) between children's attitudes towards the environment and their ability to take an attitude on this issue.

Körükçü and Ogelman (2015) researched the relationship between preschool children's social status and their attitudes towards the environment. According to the results they obtained, there was a positive and significant relationship between these two variables. They even claimed that children of this age can be interpreted about their social status based on their attitudes towards the environment.

Kaya and her colleagues (2019) measured the impact of the systems thinking approach in education on the environmental awareness of preschool children in the Urla district of the city of Izmir. In the study conducted in independent kindergartens, an experimental group and a control group were formed. The students in the experimental group were thought systems thinking approach for four weeks, and the students in the control group were thought traditional curriculum training in the same time period. According to the pretest and posttest results, it was determined that the systems thinking approach had a positive effect on the environmental awareness of preschool children.

Kesicioğlu and Alisinanoğlu (2009) interviewed 353 children enrolled in kindergartens in Giresun city center on the subject of environment. As a result of the study, they determined that there was a significant difference in children's attitudes towards the environment according to the gender factor. However, it was observed that the variables such as the parents' profession, their education level, the income level of the family and the place of residence of the kindergarten students did not significantly affect their attitudes towards the environment.

Koçak Tümer (2015) tested how adequate and reliable the "Environmental Scale for Children", which was created with the help of environmental engineers, preschool teachers and education specialists, is in measuring children's environmental awareness. In this study, which was carried out with the participation

of 106 volunteers consisting of 48-72 months old children and supported by pretest-posttest studies, the experimental group and the control group were formed and the reliability of the scale was confirmed.

Within the scope of "Applied Environmental Education Project", it is aimed to provide environmental education to students through music. A scientific research called "Environmental Education through Music in Kindergarten and Primary Schools" by Sungurtekin (2001) was conducted on this subject and concrete suggestions were put forward on how education can be given through music at the end of the research.

A research on "The Concept of Recycling in Pre-School" was conducted by Şallı and his colleagues (2013) in order to understand the concept of recycling by the students enrolled in preschool education. 30 volunteers participated in the study and 15 of these volunteers formed the experimental group and the other 15 formed the control group. Within the scope of the project, the experimental group was informed about recycling and then the students were asked to make a presentation with their families. An animated film was even produced within the scope of the project. The proficiency level of the knowledge and skills taught to children was determined through the pretest and posttest applied before and after the research. Accordingly, it was observed that the children participating in the study and in the experimental group were more conscious about recycling than the children in the control group who were not informed.

Two academicians (Dilli & Bapoğlu Dümenci, 2015) who wanted to determine the role of museums in helping preschoolers learn about extinct animals, conducted a research on this subject. 13 students aged 6 years were trained in the museum for a total of 18 hours for 3 weeks and were informed about the remains and sculptures of extinct animals. As a result, it was seen that the students made significant progress in this regard.

Two academicians (Ogelman & Ekici, 2010) evaluated the program prepared by the Ministry of National Education for preschool children in terms of environmental education. In this evaluation, they used the screening method and then formed an "expert opinion form" by taking the opinions of 23 different academicians. According to their analysis, approximately 26% of the objectives of the program prepared by the Ministry of National Education for preschool children were aimed at environmental awareness, the achievements for environmental education constituted approximately 15% of all expected achievements, and 29% of all taught concepts were related to the environment.

The project called "We are learning about the soil with Tipitop and His Friends 6" is a project that started in Denizli in 2009. The target group of the project is children who study in kindergarten in Denizli and whose families are at a low socio-economic level. In addition, living creatures (plants, fruits and animals) and natural disasters originating from the soil (erosion, landslide, etc.) are some of the concepts taught to children. In 2015, Ogelman and his colleagues analyzed the efficiency of this project. As a result, it was observed that the students participating in the project became familiar with the concepts of soil, and their attitudes towards the environment changed positively (Ogeman et al., 2015).

The nature activities (mountain climbing, playing and art activities in nature, cycling, trekking and canoeing) that children who study in kindergartens in countries such as England, Scotland, Norway and Sweden frequently do during their school years have become quite common in Turkiye in the last 10 years. There is a prevailing view among educators that such activities are not an alternative to classical education but a complement to it. Therefore, the benefits of teaching some of the lessons by a lake, a museum or a playground were researched. In the light of the positive data obtained at the end of the research, Öztürk Aynal (2013) recommended that such practices be extended at all levels of education, from pre-school to higher education.

Conclusion and recommendations

Although environmental education studies for preschool children in Turkiye have increased over the years, they are still very few compared to Western standards.

In Turkiye, it is necessary to diversify the measurement tools at the beginning of the works to be done in order to increase the environmental education researches for pre-school children. More scientific work will probably be done and clearer information will be obtained for education policy makers, thanks to the measurable data suitable for scientific work.

Preschool children need to be educated on different subjects, especially the appropriate use of natural resources, good treatment of animals and keeping the environment clean on environmental awareness.

Educational programs that will change their perspective on the environment in a positive way should be planned and implemented. Parents of students should be included in such programs and a total environmental awareness should be ensured.

Children living in cities should be provided with environments where they can interact with nature, albeit temporarily. The architectural structure and garden arrangement of the schools should be designed in such a way that children can integrate with nature.

Scientific studies to determine the factors affecting the environmental awareness of preschool children should be reviewed and the proposals proposed in this regard should be evaluated.

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