



## Investigating parents' perspective on environmental issues: What do they do and know to be a model for their children?

### Ailelerin çevre konularına bakış açısının araştırılması: Çocuklarına model olmak için ne biliyorlar ve ne yapıyorlar?

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#### Abstract

The main purpose of the current study is to reveal the ideas of parents about environmental issues and seek an answer to how parents support their children's environmental knowledge at home. To achieve this, the study included 21 mothers and fathers who have children whose ages vary from 5 to 7 and enrolled to eco-schools and non-eco-schools. The design of this qualitative study is phenomenology. Purposeful sampling method was used to select participants, and individual interview sessions were conducted at school settings with one parent from each family. Eighteen open-ended interview questions were used in order to get information about the participants' self-reported environmental knowledge and practices. The findings showed that parents were also aware of the importance of being a good role model to their children related to environmental issues. The study findings also revealed parents' meager practices to be a role model to their children at home because of insufficient environmental knowledge and practices of their own. Parents were aware of the benefits of environmental education; however, they do not do any kinds of activities specifically to enhance their children's learning about environmental issues.

**Keywords:** Environmental education, parental perspective, young children, parental factors, early childhood education

#### Öz

Bu çalışmanın temel amacı, ailelerin çevresel konular hakkındaki fikirlerini ortaya çıkarmak ve ebeveynlerin çocuklarının çevre bilgisini evde desteklemek için neler yaptıklarını araştırmaktır. Bu amaçla çalışma, çocuklarının yaşları 5 ila 7 arasında değişen ve eko-okullara ve eko olmayan okullara kayıtlı olan 21 anne ve baba ile yürütülmüştür. Bu nitel çalışmanın araştırma deseni fenomenolojidir. Katılımcıları seçmek için amaçlı örnekleme yöntemi kullanılmış ve her aileden bir ebeveyn ile okul ortamında bireysel görüşme oturumları gerçekleştirilmiştir. Katılımcıların kendi bildirdikleri çevresel bilgi ve uygulamaları hakkında bilgi almak için 18 açık uçlu görüşme sorusu kullanılmıştır. Ayrıca, çalışma bulguları, ailelerin çocuklarına çevre ile ilgili iyi bir rol model olmanın da önemini farkında olduklarını ortaya koymuştur. Araştırma bulguları, ailelerin yetersiz çevre bilgileri nedeniyle kendi uygulamalarının çocuklarını desteklemede ve rol model olmada yetersiz olduğunu ortaya koymuştur. Aileler, çevre eğitiminin yararlarının farkında olduklarını belirtmiş, ancak özellikle çocuklarının çevre sorunları hakkında öğrenmelerini geliştirmek için herhangi bir etkinlik yapmadıklarını ifade etmiştir.

**Anahtar Kelimeler:** Çevre eğitimi, aile bakış açısı, küçük çocuklar, ebeveyn faktörleri, erken çocukluk eğitimi

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#### 1. Introduction

In our days, limited access to natural environment is assumed as a root cause of most of the environmental problems (Cornell, Betz & Green, 2008). Moreover, researchers claim that human being cause a great damage on nature because of insufficient environmental knowledge (Anderson, 2010; Richard, 2002; Straub & Leahy, 2017).

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For this reason, increasing environmental knowledge and interest in parents is highly important (Duvall & Zint, 2007) because it is believed that what parents do directly influences children's knowledge and behaviors (Grusec & Danyiuk, 2014). Nevertheless, little is known about what parents know about environmental issues and do to support their children at home (Payne, 2005; Straub & Leahy, 2017).

In order to prevent environmental problems, there is a growing interest in literature to train parent and change parenting role (Sanders & Morawska, 2014). The underlying reason of this interest is that there is a strong association between parental knowledge and children's externalizing environmental problems (Marceau et al., 2015). On the one side, studies support the idea that children also influence parental knowledge on environmental education (Kerr, Stattin & Burk, 2010; Straub & Leahy, 2017). Therefore, there is a great deal of work for parents in increasing children's awareness on environmental problems. When considering environmental problems, the literature showed that today's children have a big problem that they are mostly disconnected from their natural environment (Cheng & Monroe, 2012). Thus, there is a growing tendency in teaching children environmental education of late years to underpin environmental literacy (Littleddyke, 2008). The nature is not only beneficial for understanding environmental issues, but also it is beneficial for well-being of humans. Wells and Evans (2003) studied about how being nearby the nature effects rural children's behavior and level of life stress. The data were collected from 337 rural children whose mean age is 9.2 years. The result of the study showed that nearby nature has significant effects over life stress and psychological well-being. On the other hand, Harrington (2009) found that although children prefer virtual field trip, they learn more from the real field trips. According to children's statements, real field trip to learn environment is more beneficial than virtual trips because of learning, inquiry and presence. The other interesting research was conducted by Tyler and Kuo (2008). They found that children with attention disorder and hyperactivity can better concentrate after walking. Twenty minutes waking in the outdoor area is sufficient to observe increasing attention in children compared to other places in indoor.

However, the only problem is not being far away from natural environment for children. The other subtle problem is parental factors. As long as the environmental education given to children is not supported by their parents out of school, children cannot adapt this knowledge into their ever day life routines (Vaughan, Gack, Ray & Solorazano, 2003). More clearly, parental factors in environmental education become crucial because of shaping the environmental learning of children (Johansson, 2006; Payne, 2005; Vaughn, Gack, Solorazano & Ray, 2003; Ballantyne, Fien & Packer, 2001). Moreover, gaining environmental knowledge and sensitivity in parents is highly important because of being a model for children at home (Duvall & Zint, 2007). In light of this information, Payne (2005) was studied with parents and their perception about environmental education in schools. These parents are called as Green parents because of their professionalism and level of environmental knowledge. The findings of the study revealed that these green parents mostly think that schools offer limited level of environmental education for their children.

Additionally, the relevant literature suggests that environmental education is a continuous learning process both at school and home (Sauve, 1996). For this reason, increasing environmental knowledge and interest in parents is highly important because children need to be supported to integrate their knowledge into daily life routines (Duvall & Zint, 2007; Straub & Leahy, 2017). On the other hand, especially in environmental education, parents mostly learn from their children (Payne, 2005). There is a strong emphasis in the literature on parents to influence child's environmental knowledge (Istead, 2004; Uzzell, 1994). To raise environmental knowledge in parents, Vaughan, Gack, Solorazano and Ray (2003) designed a research to understand whether parents learn from children or not. The study was conducted in Costa Rica, and nearly 60 third and fourth grades children and their parents participated to the study. For four weeks, children received courses on extinction of the Macaw bird species 2 hours per-week. The end of each course, children were given homework to read with their parents. After all of the courses ended, parents who were at experimental group showed a significance improvement in their post-test score. The result of the study detected that high level of information was transferred from children to their parents.

When all of these study results were examined, the information of what parents know about environmental issues and do to support their children's knowledge at home is highly important. Nevertheless, as Payne (2005) stated, there are very limited studies conducted, and little is known about it. Therefore, it is important to investigate parents' knowledge on environmental issues and home practices with their children. In light of this information, this study is dedicated to investigating and understanding what parents do to support children's learning out of school and whether they are aware of the importance of environmental education during early ages. In base of this study, the following one question is raised;

- How can parents who have children enrolled in early childhood education support children's knowledge on environmental issues through their daily life practices?

## 2. Method

### 2.1. Research Design

This study aimed to investigate the parents' knowledge on environmental issues and their home practices with their children through a qualitative approach which is one of the most appropriate ways of understanding what participants know and what they do in their real life (Frankel, Wallen & Hyun, 2012).

The design of the study is phenomenological research method which is based on a paradigm of personal knowledge and subjectivity (Moustakas, 1994). As phenomenological research understanding emphasizes the importance of participants' interpretations and actions, it provides a powerful way of describing what parents know on and do for environmental issues. Twelve mothers and 9 fathers volunteered to participate in the interviews. The data were collected through 18 open-ended interview questions which consist of two main parts. The first part focused on their childhood experiences at nature and knowledge on environmental issues. The second part focused on their children's education on environmental issues and how they support their children at home through their practices.

### 2.2. Context of the Study

For the current research, the study samples were 21 mothers and fathers who have 5-6-7-year-olds children enrolled to eco-schools and non-eco-schools in Ankara. Participant parents were selected through purposeful sampling method because some of the parents have some basic information about environmental issues by means of their children who have enrolled in eco-schools. On the other hand, some of the parents' children enrolled in non-eco-schools (Table 1).

Table 1

*Number of mother and father participants*

	<b>Mother</b>	<b>Father</b>
<b>Eco-school</b>	7	4
<b>Non-eco-school</b>	5	5

The main reason for selecting parents from two different schools' context is to see whether the education of their children has an influence on their knowledge about environmental issues and their practices. The age ranges of the parents participating in the study varied between 28 and 41. The interviews were conducted through face-to-face and individual meetings at schools with one parent from each family.

### 2.3. Data Collection Instrument and Process

The data were collected through 18 open-ended interview questions which were prepared by the researcher after investigating the related literature on environmental education. First, by means of some interview questions, it was determined what parents know about environmental issues and their childhood experiences at natural environment. At the second part, the researcher sought for answers the questions of what they learn from their children and how they support their children's environmental knowledge out of school through their daily life practices. For instance, some of the following questions were asked: "what do you think that your children learn in the context of environmental education at school?", "how do you support your children at home in order to enhance their knowledge on environmental education", "How do you implement these education at home with your children?"...etc.

During the preparation of the interview questions of the study, the related literature was examined. After the first form of the semi-structured interview protocol was created, two different experts in the field of early childhood education were consulted. On the feedback of the experts, the questions were edited and adjusted to finalize the interview form. Pilot study of the current research was conducted with three parents whose responses were not included in the main data. All of the questions in the form were clearly understood by these three parents and no alteration was made. After selecting the main participants of the study, each of the participant parent was given a consent form prior to the interview to explain that their participation in the interview would not judge their

knowledge or affect their children's school practices. Furthermore, parents were mentioned that their identity will not be disclosed, and code names will be utilized to present the findings.

Each interview lasted between 50 and 65 minutes. The interviews were conducted face-to-face in a school setting where the participants felt familiar and comfortable. All the interview responses were audio-taped, and also the researcher took notes while listening them.

#### 2.4. Data Analysis

In order to analyze transcribed interview responses, it was utilized the constant-comparative data analysis in which interpreted findings is compared with existing findings as it emerges from collected data (Corbin and Strauss, 2008), thus the constant validation of the data provide reliability to the findings. All of the audio-typed responses were transcribed before emerging themes and codes. After the analysis of the data, categories and codes were determined before major themes were decided. The main themes were as follows; (1) Parents' childhood experiences, (2) Perception of the environmental issues and home practices, (3) Being a model and environmental interest. The researcher and a second coder compared half of the coded data and any disagreement were discussed until a consensus was reached on the codes.

Table 2

*Sample from themes, categories, and codes*

Theme	Categories	Codes
<b>Parents' Childhood Experiences</b>	<ul style="list-style-type: none"> <li>- Spending time at nature</li> <li>- Motor vehicles &amp; devices</li> <li>- Fresh air</li> <li>- Technology</li> </ul>	<ul style="list-style-type: none"> <li>- village</li> <li>- street</li> <li>- car</li> <li>- exhaust</li> <li>- computer</li> <li>- tablet</li> <li>- video</li> <li>- television</li> </ul>
<b>Perception of the Environmental Issues and Home Practices</b>	<ul style="list-style-type: none"> <li>- Children's education at school</li> <li>- Parents' daily life practices at home</li> <li>- Knowledge on environmental issues</li> </ul>	<ul style="list-style-type: none"> <li>- school activities</li> <li>- planting</li> <li>- garbage</li> <li>- waste of water</li> <li>- waste of electricity</li> </ul>
<b>Being a Model and Environmental Interest</b>	<ul style="list-style-type: none"> <li>- Being a role model</li> <li>- Environmental interest</li> </ul>	<ul style="list-style-type: none"> <li>- recycling</li> <li>- preventing waste of papers</li> <li>- organic food</li> <li>- disease</li> </ul>

### 3. Findings

After having interviewed 21 parents whose children enrolled in eco-schools and non-eco-schools, their audio-typed responses were put in writing. The final themes emerged based on both participants' responses and literature review. These determined themes are as follows; (1) Parents' childhood experiences, (2) Perception of the environmental issues and home practices, (3) Being a model and environmental interest.

#### 3.1. Parents' Childhood Experiences at Nature

Since some of the parents who participated in the study grew far away from the city center, their interaction with their natural environment started from childhood. First, the findings for the parents' childhood experiences at nature revealed that eleven out of 21 parents have some experiences at the natural environment when they were a child. Six of the remaining parents stated that they spent their childhood by engaging the natural environment during summer times in village. Their natural surroundings which they grew up were out of city center and there were very few motor vehicles, apartments and electrical devices. For this reason, they stated that they had to use a bicycle for transportation, and they purchased vegetables from growers at first hand or they picked them from their gardens. However, interestingly, they could not clearly state the benefits of being grown up in natural setting to interest

environmental issues. Moreover, their statements for the question of “*where do you prefer to spend their free time with your children*” are a little bit different. Due to the limited number of outdoor areas in Ankara to spend free time with the whole family, they feel that they have to go shopping centers at the weekends. On the question about comparison of the surroundings where they and their children grew up cause them to reconsider their preferences. Because of that, their children's current conditions are far away from what they used to experience. To give an example, one parent stated that “*Actually, I am sorry and worried about my son, because he spends almost all of his time at school or home. At weekends, we go to shopping malls, but what can I do? There is no place in the nature to go*” (P19).

### 3.2. Perception of Environmental Issues and Home Practices

The second theme is composed of two main parts; parents' perception of the environmental issues and their home practices with their children. First, parents are generally aware of such ecological activities done at their children's school. One parent stated that “*the teacher sent a pine tree two weeks ago. I thought that it is a part of ecology lesson, but we did not find enough time and place to plant it. For this reason, I gave it to the housekeeper*” (P8). Moreover, the question about their opinion of environmental education for their children at early ages revealed that they believe in the benefit of environmental education for their children. However, they are not sure about whether children internalize this knowledge or not.

On the other hand, interview responses showed that parents received generally no or low level of environmental education. For this reason, most of them are not aware of some important environmental issues such as overuse of water resources, deforestation, waste, climate changing and global warming. However, they stated that they can learn from their children some of the environmental issues and their precautions. For instance, one of the parents explains the case like that, “*my daughter sometimes warns me when I brush my teeth to do not turn on the water, because of extinction*” (P7). This being the case, parents stated that their children try to act in accordance with what they learn in ecology activities. However, nearly all the parents thought that they cannot sufficiently support children in this respect. On the question of what they do to support children's knowledge revealed different perspectives of parents. While one of the parents stated that “*there are any special practices which I do to support my son's knowledge at home. Actually, I am not sure what should I do to support his knowledge. Maybe he knows about it more than I know*” (P20), another one stated that “*We make some activities about recycling with my daughter when her teacher gives homework, such as making something with waste materials*” (P11). The interview question about their practices to support children's learning indicated that they try to do something, but they believe that their knowledge about environmental issues is limited.

### 3.3. Being a Model and Environmental Interest

The third part of the interview questions sought for an answer for parents' general opinion about environmental interest and being a true model to their children at environmental issues. The questions about what you would do if your children are irresponsible to environmental problems disclosed that parents do not know how they can overcome such a case. On the other hand, parents mostly act for visible environmental problems such as, pollution, deforestation and energy consumption. Parents' statement about their own practices to prevent these environmental problems showed that they try to prevent these problems with different ways. To give an example, one of them expressed that “*I always throw batteries to recycle bin where is at my workplace. Batteries are harmful for soils*” (P3) and another one stated that “*overuse of papers annoys me because of deforestation; hence I mostly use both sides of papers*” (P16). As to being a model for their children, parents generally think that their knowledge and practices are meager for their children. They believe that their children can learn these environmental problems and reduce their effect over time. One of the parents expressed that children maybe do not know the underlying reason of some of the environmental problems, but they act more consciously than their parents. The other important finding of the current study revealed that parents are worried about children's future. They believe that their children cannot eat organic foods in the future. Moreover, they stated that air pollution lead to so many diseases in children, such as asthma, allergy and lung cancer.

## 4. Discussion and Implications

This study was dedicated to investigating parental factors in environmental education for preschool children. For this purpose, the study mainly aimed to answer what parents know about environmental issues and what kind of daily life practices are done by parents out of school to support their children's behavior. Moreover, parents' opinion

about the importance of environmental education during the early childhood years is another point to investigate within the context of this study.

Parallel with this purpose, the first theme of parents' childhood experiences revealed that nearly all of the parents had some experiences in the natural environment during their childhood period. However, as for children, they do not spend too much effort for their children to be close to the nature regardless of which school their children enrolled in. When previous researches were examined, the reason for this could be parents' limited knowledge about the importance of engaging natural environment. In this connection, there is an important result from the study about the relation between environmental knowledge and environmental attitudes. The study revealed that environmental knowledge was consistently related with environmental attitudes of 680 participants (Arcury, 1990). On the other hand, the other reason for limited relationship of children with the natural environment could be fear of parents. According to Louv (2008), parents fear of traffic, disease and crime. For this reason, they want to keep their children in indoor, such as school and home. In light of this information, Amemiya, Hata and Kikuchi (2013) conducted a study with 359 parents to find out whether there is any relation between their restriction and children's outdoor activities. The result showed that parents' restriction is affected by perceived crime danger at outdoor playgrounds. This being the case, the study revealed that children's outdoor activities are restricted by their parents. For instance, children are accompanied by adults when coming from school by walking.

The second part of the interview question revealed two main themes; perception of environmental education and home practices. Parents' responses showed that they believe the importance of environmental education for their children's present and future well-being, but they do not act devoted to their children's learning. According to research conducted by Toronto Public health (2002), it showed that over 70% of the parents do not smoke at home to keep their children away from harmfulness of smoking. Moreover, Kahn and Friedman (1998) interviewed 24 black parents about their practices to enhance children's knowledge. In this study, parents stated that they mostly talk about environmental problems, such as air pollution, water pollution and garbage. Additionally, they expressed that environmental education is important to live in a harmony with the nature. In light of this information, research suggests that parents' practices are important to enhance children's knowledge about protection of environment (Payne, 2005). Furthermore, parents' responses revealed another important point formerly suggested in the literature; parents learn environmental issues from their children. In this regard, Damerell, Howe and Milner-Gulland (2013) investigated whether parents' environmental knowledge is affected by their children. The result of the study showed that children's environmental knowledge has a positive effect over their parents' knowledge and awareness. Moreover, Istead (2004) interviewed 21 parents about how their own environmental knowledge is influenced by their children. Four out of 21 parents reported that they felt positively influenced by their children.

The last part of the interview focused on being a role model and environmental interest. Their responses showed that parents generally feel inadequate to be a role model. According to parents' opinion, the reason could be that they have received no environmental education. Thus, they stated that they do not know how to act to protect the environment. These kinds of parents mostly fail in raising their children's environmental curiosity by asking question and providing interesting activities (Schunk, Pintrich & Meece, 2010). Legault and Pelletier (2000) sought for an answer that driving force behind ecological behavior in children could be observed through parents' behavior. The research finding underlined that there is close relation between parents' and children's ecological knowledge, attitudes and motivations. Moreover, according to some of the parents' report, they feel lower level of satisfaction toward environment and they are more likely to learn ecological issues from their children. Furthermore, the study revealed that ecological activities done with children raised parents' ecological attitudes and motivation.

Briefly, finding from previous research suggests that attitude toward environmental issues are shaped during early childhood years (Cohen & Horm-Wingerd, 1993). For this reason, it is suggested that environmental education should take part in early childhood curriculum. However, educating children in environmental issues should not be the only concern of policy makers because of educative role of parents. Raising parents' knowledge and interest to environmental problems should be the part of environmental education. However, the current study revealed that parents' environmental knowledge and interest is insufficient to be a role model for their children. Therefore, it could be beneficial to broadcast more TV programs to inform parents about environmental issues. On the other hand, the study explored fear of parents in outside. For this reason, more safety playgrounds could be designed for children to spend their time in the natural environment. City planning can be improved to find more places where is in the nature children play. Additionally, parents' responses enable us to investigate how parents' knowledge is conveyed by their children receiving environmental education. In light of this, the environmental curriculum should include parents into program. Much more parent involvement activities can provide information to parents about environmental issues.

For the future studies, studying with more parents to investigate what they think about environmental education during early childhood years can provide information on whether it can raise their awareness or not. On the other

hand, the investigation of how children convey their parents' knowledge could be studied in future research. It will help to see parents' learning style from their children.

## 5. Limitations

There are some possible limitations of the current study. The most important one is that the interview procedure was utilized with only 21 parents. By qualitative research nature, it is suggested in-depth interviews. For this reason, it cannot be concluded about the general idea of other parents. On the other hand, the data was limited with Ankara. Maybe other parents live in different cities provide various information about environmental issues and practices to be a role model for their children.

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