



Examination of Children's Thoughts towards Animals in Terms of Various Variables

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Abstract: This study was conducted to examine children's thoughts about animals in terms of various variables. The study included 411 children attending 4th, 5th, 6th, 7th, and 8th grades in Ankara. The data were collected with a questionnaire form prepared by the researchers. In the questionnaire, along with questions about demographic information of children, there are seven items to determine children's thoughts about animals. The chi-square test was applied to examine the group differences according to the variables of gender, class, and whether or not to have a pet over the data obtained from the items of the Thoughts Towards Animals Questionnaire. As a result of the study, it was determined that girls were significantly more undecided than boys in the item "I think equestrian sport is important in terms of communicating with animals" and in the item "I like subjects related to animals", children attending 6th-8th grades tended to disagree and remain undecided. Moreover, in the item "I think that animals on the street should be approached carefully", it was found that the children attending the 4th and 5th grades tended to disagree, and in the items "I like the subjects related to animals, I think that animals should be adopted, I think that street animals have the right to live in proper conditions", it was determined that the children who did not have pets tended to be undecided and only agreed with the related items, while the children who had pets tended to completely agree.

Keywords: Child, Child development, animal, animal protection, animal love.

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Introduction

Since people live in the natural environment as well as the "built" or technological, social, and cultural environment, all of these constitute important parts of the environment. The environment is everything that affects an organism throughout its life, and it also means the environmental conditions that affect organisms. Environmental science is an interdisciplinary field that integrates the natural sciences, social sciences, humanities, and health sciences into a broad and comprehensive study of the world around us, including both the scientific and social aspects of human impact on the earth (Enger et al., 2010). Unlike theoretical disciplines, environmental science seeks new, valid, contextualized knowledge about the natural world and human impacts on it, and acquiring this knowledge also creates a responsibility to try to do something about human-caused problems (Cunningham &

Cunningham, 2010). All organisms, including humans, are affected by many components in their environment, and they are also affected by many components. In this context, animals have an important place in the human environment (Enger et al. 2010) and humans play an important role in the extinction of many animals (Santra, 2008).

It is emphasized that individuals who love and protect animals and take responsibility for them are psychologically healthy, develop socially, and benefit themselves, society, and the planet they live in (Ekim, 2020). In her study, Haskaya Suna (2019) determined that the experience of feeding/living with pets creates a multifaceted effect and variability in people's lives. It is known that animals have many benefits for humans, and it is accepted that they play an important role in the lives of children, adolescents, and indeed individuals of all ages (Ekim, 2020; Esposito et al., 2011). In the study conducted by Arıkan et al.



(2019), it was found that education on stray animals improved children's awareness and social sensitivity towards stray animals. In addition to the issues related to stray animals, studies on the importance of keeping pets at home generally show that pet ownership can be beneficial for the emotional, cognitive, behavioral, educational and social development of children and adolescents (Purewal et al., 2017), living with a pet makes people feel good (Suna, 2019), animal-assisted therapy, which can also be used in the field of health, can reduce anxiety in children, provide a comfortable environment for children, and relieve pain (Zhang VD., 2020). Similarly, it was revealed that adolescents with pets can have an improving effect on their communication with their parents and friends (Muldoon et al., 2017). Muldoon et al. (2017) found that attachment to pets provides a high level of quality of life in cat and dog owners, and Minatoya et al. (2020) found that dog ownership at an early age can reduce the risks of developmental delay in communication, gross motor, fine motor, problem-solving skills, personal and social development. As seen in the studies, animals living on the street or at home have many contributions to people. In his study, Yazıcı (2019) determined that the zoogeography course contributed to the issues of recognizing, caring, and protecting animal communities. Although there is evidence that animals are beneficial and important, it is stated that there are few studies on the relationship between children and animals, and the subject is not sufficiently understood (Melson, 2011), and in this context, it is necessary to conduct more studies on children's interaction with animals (Torkar et al., 2020). From this point of view, considering the contributions of animals, the examination of children's views on the subject can make an important contribution by leading environmental education studies (Glanville et al., 2020; Melson, 2011) that address the human-animal relationship with awareness studies, and can be an example for interdisciplinary studies. Based on the interdisciplinary dimension of environmental education, different disciplines were brought together in the study, and it was aimed to examine children's thoughts about animals in terms of various variables.

Method

Information about the model, study group, data collection tools, data collection method, and data analysis of the study conducted to examine children's thoughts about animals in terms of various variables are presented below.

Research Design

Survey technique, one of the quantitative study methods, was used (Büyüköztürk et al., 2016).

Study Group

The study included 411 children who were determined by simple random sampling method from the general population of children in grades 4, 5, 6, 7, and 8 in Ankara city center and who volunteered to participate in the study. Of the children included in the study, 58.4% were girls, 41.6% were boys, and 32.5% were in the fourth grade, 18.2% were in the fifth grade, 12.8% were in the

sixth grade, and 27.6% were in the seventh grade and 8.9% were in eighth grade. When the distribution of children's pet ownership status was analyzed, it was determined that 49% of the children had pets while 51% did not have pets.

Research Instruments and Procedures

The data in the study were collected with the "Questionnaire Form for Determining Thoughts on Animals". The questionnaire form consists of two parts. In the first part, there are questions about the child's gender, grade level, and whether the child has a pet or not in order to determine the child's sociodemographic characteristics, and in the second part, there are seven items in the five-point Likert type to determine children's thoughts about animals.

The draft questionnaire form and the rating format were presented to seven faculty members who are experts in their fields (two child development specialists, one agricultural engineer (zootechnician), one veterinarian, one measurement and evaluation specialist, one classroom teacher, one science teacher). Since the experts stated that the questionnaire form and rating format were appropriate, no changes or adjustments were made. The questionnaire form consisted of questions such as "I like subjects related to animals, I think equestrian sport is important in terms of communicating with animals, environmental cleanliness should be paid attention to while feeding stray animals, animals deserve to live in their natural environment, I think animals should be adopted, I think stray animals should be approached carefully, I think stray animals have the right to live in proper conditions".

The data were collected via Google form in the autumn term of the 2023-2024 academic year.

Data Analysis

The data obtained in the study were transferred to the SPSS package program. The data obtained from the items of the Questionnaire for Determining Thoughts on Animals were presented in the form of percentage values, and whether children's thoughts on animals changed according to gender, the grade level they attended, and whether they had pets or not was evaluated with the chi-square test.

Ethical Procedures

.....University Ethics Committee granted ethical approval to this study (.....).

Ethics committee decision

"Çankırı Karatekin University Ethics Committee granted ethical approval to this study (19.01.2023/30)."

Results

The results of the chi-square test conducted to determine whether children's thoughts about animals vary according to their gender, the grade level they attend, and whether they have pets or not are presented in the tables below.

Table 1: Distribution of children's thoughts towards animals according to gender and chi-square analysis results

		Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total	Chi-square
	Gender	f / %	f / %	f / %	f / %	f / %	f / %	$\chi^2=1,91$ sd=4 p=0,752
I like subjects related to animals	Girl	1/ .4	4/1.7	15/6.3	55/23.0	164/68.6	239/100	
	Boy	0/0.0	1/6	10/5.9	43/25.3	116/68.2	170/100	
I think equestrian sport is important in terms of communicating with animals	Girl	8/3.4	13/5.6	87/37.2	52/22.2	74/31.6	234/100	$\chi^2=12,91$ sd=4 p=0,012
	Boy	6/3.5	13/7.6	36/21.2	54/31.8	61/35.9	170/100	
Environmental cleanliness should be paid attention while feeding stray animals	Girl	1/4	2/8	12/5	57/23.8	168/70	240/100	$\chi^2=2,75$ sd=4 p=0,600
	Boy	0/0.0	1/6	4/2.4	40/23.5	125/73.5	170/100	
Animals deserve to live in their natural environment	Girl	0/0.0	2/8	19/7.9	42/17.5	177/73.8	240/100	$\chi^2=5,62$ sd=4 p=0,229
	Boy	1/6	2/1.2	6/3.5	37/21.8	124/72.9	170/100	
I think animals should be adopted	Girl	2/8	3/1.3	32/13.3	53/22.1	150/62.5	240/100	$\chi^2=0,540$ sd=4 p=0,970
	Boy	2/1.2	2/1.2	19/11.2	37/21.9	109/64.5	169/100	
I think stray animals should be approached carefully	Girl	3/1.3	6/2.5	30/12.5	83/34.6	118/49.2	240/100	$\chi^2=2,88$ sd=4 p=0,578
	Boy	0/0.0	6/3.6	18/10.7	58/34.3	87/51.5	169/100	
I think stray animals have the right to live in proper conditions	Girl	1/4	1/4	4/1.7	40/16.7	193/80.8	239/100	$\chi^2=3,50$ sd=4 p=0,478
	Boy	0/0.0	0/0.0	5/2.9	36/21.2	129/75.9	170/100	

According to Table 1, it was found that children generally agree with the feature measured in the related items at a high level. Only in the item "I think equestrian sport is important in terms of communicating with animals" a significant difference was determined according to gender. It was also found that girls were more undecided than boys in the item "I think equestrian sport is important in terms of communicating with animals". There was no gender difference in all other items.

Table 2: Distribution of children's thoughts about animals according to the grade they attend and chi-square analysis results.

Variable		Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total	Chi-square
	Grade	f / %	f / %	f / %	f / %	f / %	f / %	$\chi^2=14,13$ sd=4 p=0,007
I like subjects related to animals	4-5	1/5%	1/5%	7/3.4%	38/18.5%	158/77.1%	205/100.0%	
	6-8	0/0.0	4/2.0	18/9.0	53/26.6	124/62.3	199/100	
I think equestrian sport is important in terms of communicating with animals	4-5	8/3.9	10/4.9	56/27.6	56/27.6	73/36.0	203/100	$\chi^2=4,16$ sd=4 p=0,384
	6-8	7/3.6	15/7.7	67/34.4	45/23.1	61/31.3	195/100	
Environmental cleanliness should be Paid attention while feeding stray animals	4-5	0/0.0	0/0.0	8/3.9	39/19.0	158/77.1	205/100.0	$\chi^2=8,33$ sd=4 p=0,080
	6-8	1/5	3/1.5	8/4.0	54/27.0	134/67.0	200/100.0	
Animals deserve to live in their natural environment	4-5	0/0.0	3/1.5	11/5.3	32/15.5	160/77.7	206/100.0	$\chi^2=4,79$ sd=4 p=0,309
	6-8	1/5	1/5	14/7.0	42/21.1	141/70.9	199/100.0	
I think animals should be adopted	4-5	2/1.0	4/2.0	21/10.2	37/18.0	141/68.8	205/100.0	$\chi^2=5,41$ sd=4 p=0,248
	6-8	2/1.0	1/5	27/13.6	48/24.1	121/60.8	199/100.0	
I think stray animals should be approached carefully	4-5	3/1.5	8/3.9	20/9.8	61/29.8	113/55.1	205/100.0	$\chi^2=9,60$ sd=4 p=0,048
	6-8	0/0.0	4/2.0	28/14.1	76/38.2	91/45.7	199/100.0	
I think stray animals have the right to live in proper conditions	4-5	1/5	0/0.0	5/2.4	27/13.1	173/84.0	206/100.0	$\chi^2=8,46$ sd=4 p=0,076
	6-8	0/0.0	1/5	5/2.5	45/22.7	147/74.2	198/100.0	

I think animals should be adopted	Yes	1/5	0/0.0	20/9.8	36/17.6	147/72.1	204/100.0	$\chi^2=15,91$ sd=4 p=0,003
	No	3/1.4	5/2.4	31/14.8	55/26.2	116/55.2	210/100.0	
I think stray animals should be approached carefully	Yes	2/1.0	8/3.9	19/9.4	65/32.0	109/53.7	203/100.0	$\chi^2=5,54$ sd=4 p=0,236
	No	1/5	4/1.9	29/13.7	79/37.4	98/46.4	211/100.0	
I think stray animals have the right to live in proper conditions	Yes	1/5	0/0.0	1/5	29/14.2	173/84.8	204/100.0	$\chi^2=14,36$ sd=4 p=0,006
	No	0/0.0	1/5	9/4.3	48/22.9	152/72.4	210/100.0	

According to Table 3, it is seen that children generally agree with the features measured in the related items at a high level. A significant difference was found in the items “I like subjects related to animals, I think that animals should be adopted, I think that stray animals have the right to live in proper conditions” according to whether they have pets or not. According to the Chi-square analysis, it was determined that children who did not have pets tended to be undecided and agree, while children who had pets tended to agree strongly. In all other items, no difference was found for pet ownership status.

Discussion

In the study, which aimed to examine children's thoughts about animals in terms of various variables, when the chi-square findings were analyzed according to the gender of the children, it was determined that girls were more undecided than boys in the item “I think equestrian sport is important in terms of communicating with animals”, while the opinions of girls and boys on other items were similar. It can be thought that the reason why girls are more undecided about equestrian sports than boys is because this sport is perceived to be more about men. In the study conducted by Karabörklü Argut (2021), it was found that there were differences of opinion between male and female individuals on the features related to the sports they do, despite their similar age, sociocultural characteristics, and education levels. In the study conducted by Erim and Küçük (2023), it was emphasized that there were gender differences in motivation for sports participation. It can be argued that it is normal that gender differences are not significant because the items in our study include general thoughts about animals. It is known that all children have an intense interest in animals regardless of gender. Because animals have an important place in children's lives (Hawkins & Williams, 2017) and children are always interested in animals (Arcken, 1989).

When the other findings obtained from the study were analyzed, it was found that the children attending the 4th-5th grades tended to disagree with the related feature in the item “I think stray animals should be approached carefully”, while no difference was found in all other items. The reason for this situation may be that it has started to be thought that animals should be approached carefully with both experiences and environmental learning. In the study conducted by Olatunji and Viar-Paxton (2020), it was found that there was a relationship between the disgust behavior of the mother towards animals and the disgust behavior of her children, and giving information about cleanliness to the child caused a significant increase in positive feelings towards animals. In addition, as the grade level increases, it may be possible to develop self-protection behaviors consciously in line with developmental characteristics. Our study did not focus on the fear of animals, and this finding of the study drew attention to the importance of studies on the existence of fear of animals.

In general, animals have played a critical role in human life for centuries. Initially, the role of animals was primarily for transport, agricultural use, or food, but as humans have become less dependent on animals for these needs, they have continued to keep animals in their lives. This is how the concept of pet is formed, which leads to concepts such as human-animal communication (McClaskey, 2019). Accordingly, when the chi-square findings were evaluated according to whether the children had pets or not, it was determined that the children who did not

have pets tended to be undecided and only agreed with the items “I like the subjects related to animals, I think that animals should be adopted, I think that stray animals have the right to live in proper conditions”, while the children who had pets tended to strongly agree with the items. In all other items, no significant difference was found for pet ownership. It is thought that having a pet creates interest in subjects related to animals in children, develops a positive perspective towards adoption, and creates awareness about the concept of living space. This finding shows the effect of having a pet on the child because a child who takes care of a pet is in constant interaction with animals when the early years are considered. This interaction can naturally arouse children's curiosity about animal-related subjects and enable them to develop a positive perspective on the adoption of animals. In addition, children become aware of the living conditions of stray animals.

Goldstein and Rusu (2018) found that interacting with animals in kindergartens has many benefits for children, including stress reduction and better social and emotional development. In the same study, it was emphasized that children's ability to distinguish living things from objects, to know the needs of various beings, and the characteristics and behaviors of animals were obtained by interacting with animals. It is also known that pet ownership in childhood benefits emotional development such as self-esteem (Purewal, Christley, Kordas, Joinson, Meints, Gee, & Westgarth, 2017) and secure attachment and peer relationships (Kerns et al., 2017). Kerns et al. (2017) found that children who felt closer to their dogs were more securely attached to their parents and had fewer conflicts with their friends.

In addition to the benefits of pet ownership for child development, it also has benefits such as understanding animals and increasing positive behaviors towards the environment. Hawkins and Williams (2016) found that children with pets had higher beliefs about animal minds than children without pets. In the same study, it was emphasized that promoting positive and safe interactions between children and animals is essential to prevent bad behavior towards animals during childhood. In the study conducted by Peker and Ceylan (2020), it was revealed that children with pets had more responsible behaviors towards the environment; it was emphasized that pets contributed positively not only to children's environmental attitudes but also to the development of their personal and vital skills.

Conclusion and Recommendations

In the study, it was aimed to examine children's thoughts about animals in terms of various variables. As a result of the study conducted for this purpose, it was determined that girls were significantly more undecided than boys in the item “I think equestrian sport is important in terms of communicating with animals.” In addition, it was found that children attending 6th – 8th grades tended to disagree and remain undecided in the item “I like subjects related to animals”; and children attending 4th–5th grades tended to disagree in the item “I think that animals on the street should be approached carefully”. Moreover, in the items “I like subjects related to animals, I think that animals should be adopted, I think that stray animals have the right to live in proper conditions”, it was determined that children who did not have pets tended to be undecided and only agreed, while children who owned pets tended to strongly agree.

In line with the results obtained from the study, the following can be suggested:

- Ensuring that all children have access to activities that increase interactions with animals and include animal-related subjects,
- Organizing trainings to raise awareness about the living spaces of stray animals,
- Conducting qualitative studies on the existence of fear of animals
- Planning qualitative studies in which children's relationships with animals are examined in depth,
- Planning interdisciplinary studies in which different disciplines such as child development, zootechnician, and veterinarian come together while planning studies on animals.

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