


The Effect of Emotional Status on Children's Learning in an Informal Environment: Case of Sasaki Wildlife Park

Hakan Turkmen ^{1*} 

¹Department of Mathematics and Science Education, Faculty of Education, Ege University, Izmir, TURKEY

*Corresponding Author: hakan.turkmen@ege.edu.tr

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ABSTRACT

This study aims to examine the relationship between the emotional status of children, visiting the Sasaki Wildlife Park, one of the informal learning environments, and how much time they spend in this environment. In the study, 175 students were selected by the non-probability sampling method. The emotional status of the participant was noted and how much time they spent in certain animal exhibitions was calculated. The student's emotional dialogues were analyzed by content analysis and the result data were shown in tables. According to the results, it was determined that in the exhibition where the visitors spent the longest time, the most emotion of "love-excitement" of the participants was observed. It has been concluded that when informal learning environments provide positive emotional satisfaction, it will enable learning to take place.

Keywords: informal learning environment, emotional status, science teaching, young kids learning

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INTRODUCTION

Education is the acquisition of knowledge, skills, values, morals, beliefs, and habits and applying them in own life. This is a "process of deliberately bringing about the desired change in an individual's behavior through one's own experience" (Erturk, 1972, p. 12). So that shapes all of us. The essential of education is individuality and alteration. In what direction and how individual alteration will be carried out leads us to the learning and teaching process (Allen, 2004; Orion & Hofstein, 1994). This process continues all the time, meaning people learn the whole time of their life. While learning can take place in schools, and non-formally in social institutions via planned programs, it can also take place spontaneously everywhere. When teachers teach science topics in museums, planetariums, science centers, zoos, botanical gardens and herbariums, camps, national parks, aquariums, and industrial establishments, in the light of curriculum, these places provide the opportunities to learn, are called informal learning environments (Briseno-Garzon et al., 2007b). In recent years, these informal learning environments have expanded further. School gardens, streets, hospitals, shopping malls, bazaars, markets, and almost every place imaginable are accepted as informal learning environments. In order for the individual to achieve learning outcomes, student-centered lessons are expected in informal environments as well as in the classroom environment. Many studies emphasize that it is necessary to have certain characteristics in order to achieve learning outcomes in the best way in informal environments. These characteristics are, as follows:

1. Students should have fun and the environment should attract the attention of the student and arouse interest and curiosity.
2. Volunteering is essential in the settings. Students should not be forcibly joined in the lesson taking place in these environments, this should happen in the light of legal permissions.
3. It is necessary to allow our students the opportunity to decide for themselves what they will discover or see, and what they will do (self-directed).
4. During this process, students should be allowed to behave like scientists and enable them to gain some outputs by hands-on.
5. There should be no restrict on the limit of the time, the student should be given the opportunity of open-ended and flexible time.
6. We should not expect sequential use of science process skills and problem-solving skills.
7. For students to reach certain learning outcomes, field trips should be planned and aimed within the curriculum, because the purpose should be learning of scientific knowledge (Orion, & Hofstein, 1994 as cited in Turkmen, 2010).

People visiting informal learning environments need to have a specific purpose, desire, emotion, and motivation. It is thought that visits made with these strategies will affect the duration of the visit (Falk et al., 1998). Informal learning environments contribute greatly to the development of interest, excitement, motivation, enthusiasm for learning, awareness, general openness, and agility (Briseno-Garzon et

al., 2007a). These environments can be seen as a step in reaching emotional satisfaction.

Emotions appear from the intersection of individuals and their environment and shape from objects and activities or/and are shaped by the reaction of the people around them. Because these factors trigger a network of interconnected neurons in the limbic system of the brain, emotions arise. Emotion is a concept that has always been interested and researched since ancient times. It is known that emotions have a connection with individual behaviors and cognitive learning processes. Emotions such as surprise, excitement, happiness, and fear have a great place and effect on cognitive and learning processes. Emotional and mental processes are considered to be interconnected (Pinar, 2015; Rappolt-Schlichtmann et al., 2017). Emotions also play a big role in increasing the possibility of any case storing in memory and being remembered (Scrimin et al., 2016). It can also be used as a tool at the point of interest. Anything that touches emotions also attracts attention. Anything that attracts attention arouses more curiosity. In this interest, attention, and curiosity situations, the teaching process that takes place in informal learning environment provides benefits to the students. This type of teaching process allows students to experience a different environment, to attract attention by breaking up their daily school routine, to develop their social and motor skills, and to increase their motivation (Alan & Tal, 2015; Valiente et al., 2012). Students who are actively interacting with each other and the environment become willing to spend time in these environments. It can be thought that learning and the permanence of the learned knowledge may increase if students are sometimes intertwined with more than one emotional status. Natural wildlife parks that appeal to one or more emotions and provide a remarkable interaction environment are among the best examples of informal learning environments where learning, entertainment, and keeping the interest alive are provided easily. Natural Wildlife Parks are centers to display many different kinds of animals and provide natural habitats for them and are responsible for their nutrition. Apart from exhibiting animals, natural wildlife parks also inform visitors with signs containing information about animals and their living conditions. Rather than the information on the signs, the presence of interesting visual posters, models, and technological tools and the display of remarkable or lesser-known/unique animals increase the memorability of the information in visitors' minds (Smith et al., 2008; Yalowitz, 2004). In this way, natural wildlife parks are more instructive. Visitors come with prior knowledge and establish conceptual connections between the information they have learned here and the prior knowledge. Learning that takes place in these environments is permanent because it addresses more than one dimension (Borun et al., 1996; Hyson, 2004).

There are many studies on the learning and learned information remaining in memory for a long time in informal environments. Crowley et al. (2001) said that visitors are more successful in finding solutions to current problems, as they interact and spend more time in exhibitions that attract their attention and appeal to them, that is, that evoke a sense of joy and surprise, in an informal learning environment. Williams and Rennie (2002) state that informal learning environments should be places with the necessary information that can be used to solve daily problems. They emphasized the importance of not only learning scientific information but also being closely related to science and paying attention to science and understanding science and establishing a relationship with the individual and society. In addition, the time spent in such informal environments increases the

permanence of the acquired information, depending on the visitor's coming to the informal environment for a purpose. Alan and Tal (2015) stated that although some variables, which are good classroom preparation, carefully designed learning activities, and connection to the school curriculum, were important for a good field trip, interestingly these variables were not acknowledged by the students as contributing to their learning, attitudes toward the environment, and their environmental behavior. Variables of guide's storytelling, physical activities, and making connections to everyday life affected students' self-reported outcomes, and the students' cognitive, affective, and behavioral outcomes. Stevenson (1991) stated that if informal learning environments are interesting and intriguing, they have a permanent effect on visitors during and after visiting time. These types of informal learning environments are inspiring and encourage visitors towards science and technology. Not only good memories but almost everything experienced is remembered by visitors. If informal learning environments are built multidimensionally, the visitors learn while having fun, do not realize the time spent, and positive emotions experienced allows them to keep what they have learned in their memory for a long time. Dierking and Falk (1994), like Stevenson's (1991) study, stated that visits to informal learning environments should be more interactive, interesting and have more exhibition places to increase the cognitive and affective process skills of visitors. Falk et al. (1998) determined in their study that there is a significant relationship between learning and the duration of the visit. They stated that the emotional satisfaction of the visitors and the length of their spending time greatly affected what they learned from the informal learning environment. They once again emphasized that informal learning environments are environments that teach while entertaining. Visitors who have fun tend to learn more and spend more time in the field.

The purpose of this study is to examine the effects of emotions on the child's spending time by observing the emotional status of the child who comes to the Sasali Wildlife Park, which is an informal learning environment and analyzing their speech in the light of emotions. There is a strong link between cognitive and affective content. The effects of environments on feelings and behaviors are inevitable (Falk & Dierking, 1997). With the study, it will be evaluated whether the effects of the Sasali Wildlife Park have sufficient efficiency. Due to the scarcity of studies on informal learning environments in the literature review, this study will be a useful resource for commenting on learning by examining the relationship between mood and time spent.

Izmir Sasali Wildlife Park

Izmir Sasali Wildlife Park has the distinction of being the first zoo in Turkey in 1937. It was moved to Cigli Sasali in 2008 and transformed into the first natural wildlife park. Designed similar to the natural habitats of animals, the Sasali Wildlife Park, where the city and its inhabitants can breathe with its many tree and plant species, has become one of the most attractive places of Izmir in a short time. The park is home to 1,500 animals and more than 250 plant varieties. Izmir Sasali Wildlife Park is a member of the European Association of Zoos and Aquariums. In the education phase, the groups of visitors are given lectures about general information about the zoo, wild animals and their environment in the conference rooms and educational activities and some entertaining surprises in the open area. The purposes of educational activities are to promote people's awareness, knowledge, and appreciation of animals' habitats and to provide information and

Table 1. Distribution of participants' age

7 years old	8 years old	9 years old	10 years old	11 years old
38	36	49	24	28

advice on environmental issues for people. Moreover, the signs in the area allow visitors to easily tour the area and easily learn about the living things (Izmir Sasali Wildlife Park, 2013).

METHOD

The case study method in which a situation or event that occurs mostly on a group of participants is examined and evaluated in detail and as one of the qualitative research methods, was used in the study. It also provides a detailed examination of information that can be ignored or missed by other research methods (Punch, 2005). The researcher tries to reveal the problem by asking the "how" question and the data obtained data are evaluated by frequency analysis (Yildirim & Simsek, 2018).

Study Group

The study was conducted with 175 primary-school-age children between the ages of 7 and 11 who visited the Sasali Wildlife Park, which is one of the informal learning environments. The participants were selected by using the "purposeful sampling" from non-probability sampling methods. The purpose of choosing primary school children is their emotional maturity position. Emotional maturity is the ability to accept one's own emotions and to direct them appropriately, instead of directing their behavior according to their emotions, and develops in coordination with biological maturity. Since emotional maturity is not fully developed in children, they show their feelings more openly and fearlessly in the face of a situation in social life. The children are between the 2nd and 6th grades and the age distribution is given in **Table 1**.

Data Collection Instrument

For this study, the Lemur, which is not very familiar to the visitors, elephant, which is more familiar, and snake, which are thought to have a negative effect on the visitors, were selected. Before the visit, the children's pre-knowledge was tested by asking 4 open-ended questions, related to

- (1) what purpose of visitors,
- (2) animals' diet,
- (3) animals' habitat, and
- (4) animals' homeland or where it came from.

These questions, which they could find answers easily to in the Sasali Wildlife Park, are not thought. At the end of the visit, five open-ended questions (the same three questions about animals asked before the trip + two questions about the Sasali Wildlife Park as an informal learning environment) were asked. Moreover, the emotions of the children were determined by the structured observation approach, and how long time the children spent in which animal exhibition area was calculated by a chronometer. Buyukozturk et al. (2018) suggest that a

coding system should be prepared to collect data and note the data easily to make a well-structured observation. The observation form was prepared for this perspective, children's emotions were defined in four categories as "love-excitement", "fear-anxiety", "neutral", and "confused". To be able to code correctly during the trip, the conversations of the children with the people around them were recorded and the researcher assumed the role of non-participant observer.

Data Collection Procedure

Data was collected during August, September, October, and November. Due to the COVID-19 pandemic, the process was long in order to reach a sufficient number. The first of the four questions asked before the trip was generally answered by the children and their families and the other three questions were completely answered by the children. This procedure was a face-to-face interview. After that, they were closely observed during the whole visit. They were not forced to visit only the exhibition areas of elephant, snake, and lemur. They were free to visit whatever exhibitions they want. If any of the participants were not to visit one of three animals, s/he was eliminated from the study group. During the observation process, how children interacted in three different animal areas was recorded, measured their spending time, and marked their emotional status in the observation form. Finally, at the end of the visit, five open-ended questions were asked as a post-interview. It took five-10 minutes to answer the pre-interview questions and 10-15 minutes for the post-interview questions. **Table 2** explains the data collection procedure.

Data Analysis

The answers given to three open-ended questions about three animals were scored zero for "unanswered and wrong answers", one for "incomplete answers", and two points for "fully correct answers". Data were evaluated by frequency analysis. The data obtained from one open-ended question related to the visitors' purpose for coming to the informal environment before the visit and two open-ended questions related to informal learning environments after the visit were evaluated by content analysis. Content analysis is to gather and organize data with common features within the framework of certain categories and to interpret it in a way that the reader can easily understand (Yildirim & Simsek, 2018). The recordings of their video during the trip were examined by the researcher and two other experts, and the emotional status of the children was determined. The calculation of the inter-rater confidence was found 76%. Other data were presented in the frequency and percentage tables.

RESULTS

At the entrance and exit of the Sasali Wildlife Park, all questions were analyzed separately. The first question was what the visitors' purpose was to come to the Sasali Wildlife Park. The decision to visit Sasali Wildlife Park was made by parents (f:89, 51%), children (f:56, 32%), and both (f:30, 27%). For this question, 456 answers were

Table 2. Data collection procedure

Before the visit to Sasali Wildlife Park	Visit time	After the visit to Sasali Wildlife Park
Pre-interview: One open-ended question about visitors' purpose & three open-ended questions about animals' life	Observation of emotional status & measured of spending time	Post-interview: Three open-ended questions about animals' life & two open-ended questions about natural wildlife park as an informal learning environment

Table 3. Purpose of the visitors' agenda

Codes	f	%
Family enjoyment activity	139	30.5
Run-off COVID-19	89	19.5
Run-off city life	36	7.8
Seeing living animals (not normally seeing daily lives)		
Wild animals (lions, tigers, etc.)	36	7.8
Wild birds (eagle, falcon, etc.)	32	7.1
Huge animals (elephants, giraffe, etc.)	31	7.0
Tropical animals (parrot, tuka, etc.)	17	3.7
Curiosity (first time coming)	39	8.6
Doing children homework	20	4.3
Run-off school life	17	3.7

collected by children and their parents. These data were categorized into six codes, family enjoyment activity (f:139, 30.5%); family leisure time divided into two subcodes, run-off COVID-19 (f:89, 19.5%), and runoff city life (f:36, 7.8%); seeing living animals code divided into four subcodes, wild animals (f:36, 7.8%), wild birds (f:32, 7.1%), huge animals (f:31, 7%), and tropical animals (f:17, 3.7%); curiosity (f:39, 8.6%); doing children's homework (f:20, 4.3%), and just run off school life (f:17, 3.7%) (Table 3).

These results were very understandable because there is a covid19 problem and many people die every day and people have to obey the social distance rule, one of the solutions. People also want to escape from big city complexity, traffic, noisy environment, job stress, relationship stress, etc. On the other hand, many children grow up without seeing or touching real living animals in their life. Sasali Wildlife Park allows them to interact with animals. Their desire is naturally very common to see animals. Additionally, a few of the big and popular football teams' symbols are animals, for example, lion: Galatasaray and eagle: Besiktas. These football team symbols may have influenced the children's desire to see animals.

In the analysis of questions about animals all participants' knowledge levels increased. The children's answers were examined for

each animal separately. For elephants, the first question was "How do elephants feed?" While the number of children who answered the question completely wrong decreased from 30 in the pre-interview to 20 in the post-interview, the number of children who gave the fully correct answer increased from 67 in the pre-interview to 113 (64.6% success) in the post-interview. In the second question, "What kind of area do elephants live in?" While the number of children who answered the question completely wrong diminished from 60 in the pre-interview to 10 in the post-interview, the number of children who gave the fully correct answer increased from 67 in the pre-interview to 105 (60% success) in the post-interview. In the last question, "Where did the elephants come from here, where do you think their homeland is?" While the number of children who answered the question completely wrong decreased from 80 in the pre-interview to 40 in the post-interview, the number of children who gave the fully correct answer raised from 55 in the pre-interview to 100 (57.1% success) in the post-interview (Figure 1).

There is an increase was observed in the children's academic achievement of the snake, but it is not as much as elephants' results. While the number of people who gave completely wrong answers in the first question about the feeding of snakes diminished from 39 in the pre-interview to 19 in the post-interview, the number of children who gave the fully correct answer increased from 38 in the pre-interview to 80 (45.7% success) in the post-interview. The second question is related to the habitat of snakes. While the number of children who answered the question completely wrong decreased from 92 in the pre-interview to 43 in the post-interview, the number of children who gave the fully correct answer increased from 39 in the pre-interview to 82 (46.9% success) in the post-interview. In the last question relating homeland of snakes, While the number of children who answered the question completely wrong decreased from 60 in the pre-interview to 34 in the post-interview, the number of children who gave the fully correct answer increased from 40 in the pre-interview to 71 (40.6% success) in the post-interview (Figure 2).

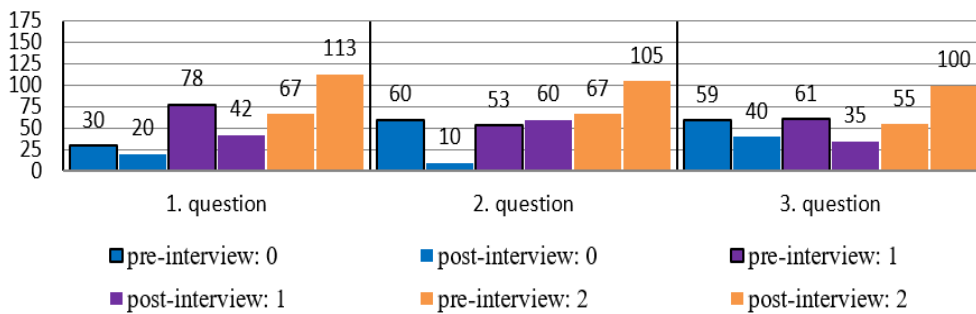


Figure 1. Elephant pre- and post-interview (Source: Author's own elaboration)

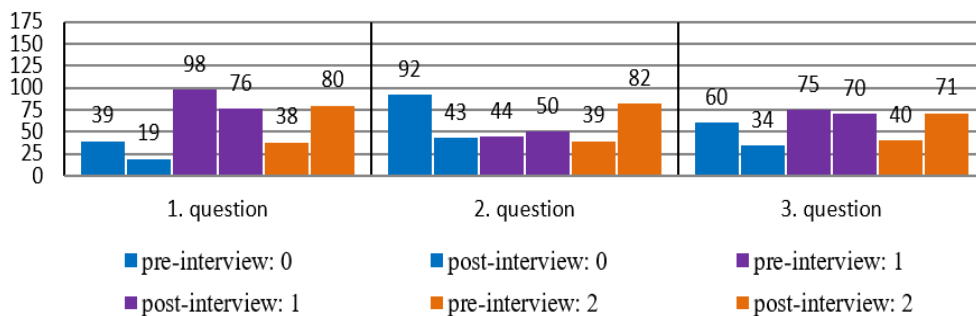


Figure 2. Snake pre- and post-interview (Source: Author's own elaboration)

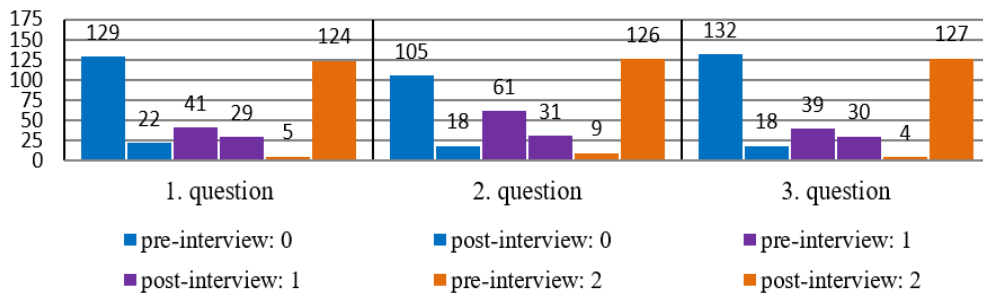


Figure 3. Lemur pre- and post-interview (Source: Author’s own elaboration)

Table 4. Visiting times in three animals’ exhibition areas

Animal	Time mean	Total time
Snake	1 min. 3 sec.	11,025 sec. (3 h. 3 min. 45 sec.)
Elephant	1 min. 45.sec.	18,350 sec. (5 h, 5 min. 50 sec.)
Lemur	3 min. 16 sec.	34,300 sec. (9 h. 31 min. 40 sec.)

The most interesting results and the highest alteration were observed in the children’s academic achievement of the lemurs. While the number of people who gave completely wrong answers in the feeding of lemurs diminished from 129 in the pre-interview to 22 in the post-interview, the number of children who gave the fully correct answer increased from five in the pre-interview to 124 (70.9% success) in the post-interview. About the question of the habitat of lemurs, while the number of children who answered the question completely wrong decreased from 105 in the pre-interview to 18 in the post-interview, the number of children who gave the fully correct answer increased from 9 in the pre-interview to 126 (72% success) in the post-interview. In the last question relating homeland of snakes, while the number of children who answered the question completely wrong decreased from 132 in the pre-interview to 18 in the post-interview, the number of children who gave the fully correct answer raised from four in the pre-interview to 113 (72.6% success) in the post-interview (Figure 3).

According to the pre-interview results for all three animals, it was seen that the participants had the lowest knowledge about lemurs, then snakes, and lastly elephants. In the post-interview results, while a general increase was observed in the number of correct answers for all animals, the academic achievements of the students were highest about the lemurs, followed by the elephant, and lastly the snakes.

How much time the children spent in the three animals’ exhibition area was measured with a chronometer. Each child participating in the study spent an average of one minute three seconds in the exhibition area of snakes (total: three hours, three minutes, 45 seconds); one minute and 45 seconds in the exhibition area of elephants (total: five hours, five minutes 50 seconds); three minutes and 16 seconds in the

exhibition area of lemurs (total: nine hours, 31 minutes, 40 seconds) (Table 4).

When the emotional status of distributions of children in the exhibition area of the observed animals are examined, the highest frequency of love-excitement (f:115) emotion status in the lemurs, confused (f:43), and fear-anxiety (f:86) emotion status in the snakes, and neutral (f:67) emotion status in the elephants were observed. Besides these results, the lowest frequency of love-excitement (f:16) emotion status in the snakes, confused (f:20) and neutral (f:17), and fear-anxiety (f:6) emotion status in the lemurs were observed (Figure 4).

When the time spent by the children in the three animals’ exhibition area is compared with their emotional status, children spend the highest time in the exhibition area of lemurs, the most emotional status in that area is the love-excitement and children spend the lowest time in the exhibition area of snakes, the most emotional status in that area is the fear-anxiety. Since children are more interested in lemurs, they carefully watched lemurs’ movements, talk much with parents and/or relatives, and the more read the signs including some information about lemurs. As a result, they stayed there much more time. Some examples of their conversations are, as follows:

Love-excitement emotion:

C43 (7 years old): Aaaa! Mom, look how long his tail is?

Mother: Yes my son I saw it, isn’t it beautiful??

C98: This is a very cute monkey, look how it is swinging in the tree with its tails (love of lemur).

Mother: It is not a monkey, my son, look, it says lemur here.

C43: Look at his eyes mommy his eyes.

Snakes, which have the highest level of fear-anxiety of children, have the lowest visitation time. Children tended to quickly leave the exhibition area of snakes in which they had fear and were tense. For example:

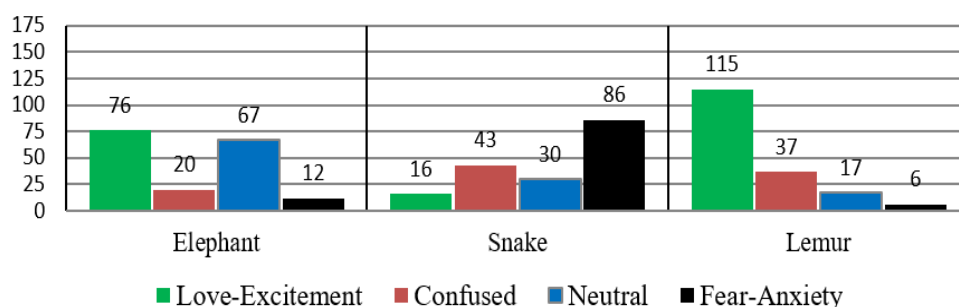


Figure 4. Emotional status of children (Source: Author’s own elaboration)

Fear-anxiety emotion:

Father: Have you seen the snake, look at his color.

C102 (10 years old): Okey's dad (pulling his mother by the hand)

Father: Look at, he is sleeping

C102: They drugged them so they would not attack people, Dad, let's go.

Neutral and love-excitement emotional status of children has close effects on an exhibition area of the elephant. The children observed for a while and left the area. Interestingly, it was recorded that some of the parents, who came before, told the story of Bahadir Elephant, who lived and died 59 years (in 2007) in the same exhibition area. For example,

Neutral and love-excitement emotions:

Mother: My prens look, do you see the big elephant?

C77 (9 years old): Yes

Mother: Look, look, how he drinks water with his huge hose?

C77: Hi hi.

Mother: How they have big ears, come and look!

C77: Look mom, elephants Bahadir's grave is here. What a pity yaaaa.

Mother: Yes, my son, as you see these elephants are his (Bahadir Elephant) children. He died at 59 years old and live alone most of his life here. Finally, wildlife park administrators found a spouse for him then he lived happily after.

After the visit, the first question was, "did this visit contribute to your learning of new information, can you briefly explain?" about the evaluation of the Sasali Wildlife Park as a learning environment, asked the children participating in the study. All participants learned something themselves, which was from their observations, signs, and partly parents. According to their explanation, learning in the wildlife park is fun (21.2%), not stressful (19.1%). They saw many animals, real (17.5%), wild (12.5%), and unique (10.3%) with their eyes. There was no mandatory sitting, listening to something (14.5%), and taking quizzes (4.3%), like in the school. On the other hand, it was not missed that no child asked any questions in order to learn or get rid of their curiosity to the staff at the Sasali Wildlife Park (Table 5).

The last question of the study was "do you want to here or at school, why?" With the question, it was tried to get children's personal opinions

Table 5. Visiting and learning

Codes	f	%
Learning is fun here	132	21.2
stressful	119	19.1
Seeing real animals	109	17.5
Yes No mandatory of sitting and listening to something	91	14.5
Seeing wild animals	78	12.5
Seeing unique animals	64	10.3
At school	31	4.9
No	0	0.0

Table 6. Comparison with learning in school and Sasali Wildlife Park

Answers	f	%
Sasali Wildlife Park (f:101, 57.7%)		
Having fun	93	26.6
Freedom	64	18.3
Learned by watching animals	49	14
Learned by spending as much time as we wanted	40	11.4
Learned from signs	37	10.6
Smartboard	35	10
Do not have to write much	32	9.1
School (f:54, 30.9%)		
Doing science experiments	47	29.6
Watching science videos	40	25.2
Learning with friends	39	24.5
Loving teacher	33	20.7
Both (f:20, 11.4 %)		
Learning in both areas	20	57.1
Having fun in both areas	15	42.9

about the Sasali Wildlife Park as an informal learning environment. All the answers were analyzed in three themes, natural wildlife park (f:101, 57.7%), consisting of three codes, having fun (26.6%), freedom/feel free (18.3%), learned by watching animals (14%), learned by spending as much time as we wanted (11.4%), learned from signs (10.6%), seeing the real thing instead of watching from smartboard (19%), and do not have to write much (9.1%); school (f: 54, 30.9%), consisting of four codes, doing science experiments (29.6%), watching science videos (25.2%), learning with friends (24.5%), and loving teacher (20.7%); both (f: 20, 11.4%), consisting of two codes, learning in both areas (57.1%), and having fun in both areas (42.9%). The results showed that over the half of participants want to learn in the wildlife park (Table 6).

CONCLUSION AND DISCUSSION

Natural wildlife parks, established for many animals' habitats, provide to display unique and endangered to extinct animals for people and educate people. For education, the parks offer school groups the use of the parks' facilities and deliver educational programs on a variety of science topics and themes. Many studies have shown that people visit these kinds of parks for some sort of reason. Their agenda is not only as a place of family enjoyment, entertainment, and social activities but also as a learn something (Briseno-Garzon et al., 2007b; Falk et al., 2008; Packer & Ballantyne, 2002; Turley, 2001; Turkmen, 2015). Generally, people who go to natural animal parks and/or zoos are to view animals with an unstructured and unsupervised plan. If any learning occurs because of visitors' motivation or interest, therefore it is called "free-choice" learning. In the study, the purpose of the participants to come to the Sasali Wildlife Park is to have a good time with their families, to get away from the stress of COVID-19, school, and the city, and to see real living animals. Some participants are curious because of never been to the Sasali Wildlife Park and want to do their homework.

In the study, the frequency of children not having any information about all three animals before the trip showed a great decrease after the trip. This result is parallel to the frequency of children, having partly correct knowledge, except the question about the habitat of elephants and snakes. Parallel to all the results, it was seen that the frequency of children having full knowledge about three animals increased after the

trip. This is an indication that the Sasali Wildlife Park, as an informal learning environment, is an instructive place.

The reason why students learn new information in the Sasali Wildlife Park may be that students did read the signs, freely shared the information that they learned with their relatives and/or parents and completed each other's lack of knowledge during the field trip. They did it all in the light of without their teachers' instructions and self-directive of their own curiosity.

The wishes, feelings, thoughts, and goals of the people who visit informal learning environments affect the duration time, and expectation of the visit (Everett et al., 2007; Federmen, 2019). When people engage in meaningful activities that increase their motivation to learn in informal settings, they get rid of negative affective factors such as anxiety and fear. Allen (2004) emphasized the importance of the duration time of the visit in his study and said that the average duration time should be around 30 minutes. If either this period is exceeded, navigational fatigue occurs and this leads to a decrease in motivation, or short, it may lead to inefficient results because it does not provide sufficient interaction. For that purpose, balancing time is important. In this study, participants were not forced to visit only the exhibition areas of elephant, snake, and lemur. They were free to visit whatever exhibitions they want. Considering the time spent in the Sasali Wildlife Park, it was observed that the visitors spent time in demand of their expectations. They stayed max time in the exhibition area of lemur when time compared in each other areas.

Satisfaction with the visiting informal environment causes visitors to obtain outputs of emotional satisfaction, social interaction, and productive time. Emotional satisfaction and interest are some of the biggest factors affecting learning. Spending time in exhibitions that provide emotional satisfaction in terms of love and sympathy is remarkable. In the exhibition areas of lemur and elephants, it has been observed that children whom both have fun and positive emotions, such as curiosity and love, tend to learn. Conversely, negative emotions, especially fear and anxiety, reduce learning or increase at least not as much learning as positive emotions. So, more negative emotions (fear and anxiety) were seen in the exhibition area of a snake than in others. These results showed parallelism with the Rappolt-Schlichtmann et al. (2017) study with children aged 10-14 on the subject of ratio and proportion in the science museum, and Falk and Gillespie (2009) study with people aged 10-over 65 the relationship between visitors' emotions and changes in their long-term cognition, attitudes, and behaviors at the science center.

Learning environments can be made cozier suitable to learn for children in the light of considering the emotions of children. While preparing a lesson plan that will take place both in formal and informal environments, it should be made in a way that appeals to the children's five senses, especially the eyes and ears. According to the content of the science subjects to be taught, if formal teaching process with student-centered strategies integrated into the informal learning environments, as seen in this study, if children feel freer and are given some space to lead lessons with their wishes, their learning possibilities will increase.

Environments such as Sasali Wildlife Park support learning as attractive, interesting, and intriguing environments. These environments teach while students have fun. If teachers organize visits to these types of environments within the scope of preparation of student-centered lesson plans, they will provide great support to the cognitive and affective development of their students. Thus, natural

wildlife parks (zoos) administrators should establish close links with school administrators. As Morentin and Guisasa (2015) said administrators and experts should prepare programs in the light of school lesson curriculums by giving importance to students' emotional satisfaction and should promote students' awareness, knowledge, and appreciation of animals' habitats and provide information on environmental issues.

Limitations

1. One disadvantage of this kind of study is that participants may behave inauthentically because they are aware of the microphones and followed them (Allen, 2002).
2. Another disadvantage is the COVID-19 pandemic. Some data, recording participants' videos, observing their non-verbal behaviors, and determining their emotional status were unclear. During the pandemic process, social distance has to be at least 1.5 m, this makes it hard to get some data for the researcher.

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