

Preschool Teachers' Views on Schools' Indoor and Outdoor Environment Safety

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Abstract

The aim of this research is to analyze opinions of teachers who work in preschool education institutions concerning precautions that should be taken for indoor and outdoor security. Study group of this research is determined by criterion sampling from purposeful sampling techniques. The study group of this research is consist of eight preschool teachers who work in four private and four public schools in Kocaeli İzmit district in the fall semester of 2013-2014 Academic Year. For the purpose of the research, data are collected with semi-structured interview technique. During the research, the interviews are recorded with tape recorder and the interviews are put down on paper then analyzed. After the recorded data are submitted to approval of participants, the analysis of the data has started. Data are analyzed with descriptive analysis method and coded then interpreted. In order to ensure validity of the research, the data are tried to be analyzed with direct quotes of the participants. Research findings show that the most important risk factors are caused by defective design of schools. Research results also show that schools have not only indoor security problems such as stairs and door but also external security problems such as garden and playgrounds.

Keywords: preschool education, school security, physical and social environment

1. Introduction

Schools which are one of the places that students spend most of their time are social institutions that bring new behaviors to students during development of personality and decrease unwanted behaviors. Security is an essential element in order the education to have a healthy process (Yılmaz, 2010; DeVoe et al., 2004). Security means a safe place without violence and threat (Jimerson et al., 2006; Peterson et al., 2001). If the students feel safe they can trust their teachers and be successful (Newman et al., 2003; Pepinsky, 2000). In this respect it is indicated that school security is related to social-emotional state of the students (Nairn et al., 2003). Safe schools are the places that students and teachers feel themselves free physically, psychologically and emotionally (Aydemir et al., 2012; Burke et al., 2003).

Contrary to common belief, precautions for school security are not only for preventing crime and violence. School security is related to improvement of physical conditions indoor and outdoor school, raising awareness about child development and psychology, interaction with parents of children (Karal, 2011). A joint research that Bahçeşehir University and CGS (City Security Group) have conducted shows that parents worry a lot about school security. At the interview which 1000 parents participate, participants point out that they worry about students' security during school hours (Düşkün, 2013). Researches show that there are different problems with regard to physical and psychological security of students and employees in the schools in Turkey (Özer et al., 2013). The problems which are in physical and environmental design of school and school environment in our country cause security threats. And this situation prevents students from taking education in a healthy and safe atmosphere (Karal, 2011).

Physical and environmental design of school is more important for the preschool children than elementary school and over 15 years of age. Preschool education has distinctive specialties because of the age range. Children in this age range cannot maintain their care because they are in first steps of their physical and psychological development stages. Therefore all the factors that can harm them should be kept under control (Ayar et al., 2010;

Duke et al., 2014). Because education of children of this age range will affect their whole life, their psychological interactions is also all important. A peaceful and safe atmosphere affects children's character traits (Kandır et al., 2001). Level of security risks is related to level of danger, structure and skills of child, environmental conditions like seasonal conditions and physical conditions. Accordingly along with age environmental factors should also be designed as to age and skills. Security requirements are a follow-up of biological requirements and include factors that may cause to risks and precautions that may be taken. School should be equipped with furniture that is appropriate size and standards of children. It is known that furniture that is not appropriate for physical structure of the child damage skeleton and muscle system of the child (Baran et al., 2007). Lighting, temperature, humidity conditions of the school is necessary for healthy growth. Security requirements should be provided by the family, school or the person who is responsible for the child or institution (Solak et al., 2007).

The main purpose of this research is to determine opinions for school security based on opinions of teachers who work in preschool education institutions. For this purpose, following sub questions are tried to be answered;

- What are opinions of teachers related to security of outdoor school?
- What are opinions of teachers related to security of indoor school?
- What are opinions of teachers about precautions that should be taken for school security?

2. Method

2.1 Research Design

This research has been carried out using qualitative research technique. In qualitative research, observation interview, analysis of documents etc. qualitative data collection methods are used (Yıldırım et al., 2008).

2.2 Study Group

The study group of this research is consist of teachers that work in eight preschool institutions in Kocaeli İzmit district which is determined by criterion sampling from purposeful sampling techniques. The fact that teachers work in same school at least for 6 months is specified as a criterion for the study group of the research. Eight teachers have been chosen as a study group from eight preschool institutions and four of them are public and the other four are private institutions. After teachers of the chosen independent preschool institutions have given approval to contact, the interviews have started. Interview dates has been determined previously with the participants and they are informed that the data would be confidential. A coding system which involves interviewer titles and school types has been developed. For example code of "O1" means private school and the first participant that has been interviewed and "P2" means public school and the second participant that has been interviewed.

2.3 Data Collection Tools

Qualitative data have been collected with semi-structured interview technique. While interview form has been formed, researches which are designed in a qualitative and quantitative model for school security are analyzed and draft interview form has been prepared. Draft interview form is submitted to opinion of two experts. In accordance with expert opinions, questions are put into final form and the questions of draft interview form have been addressed to two teachers who work in an independent private preschool and are not included to study group of the research for pilot scheme. As a result of expert opinions and pilot schemes articles in the interview form are put into final form.

Some of the questions which are asked to participants for school security are; "What are your opinions related to school security?", "what are elements which threaten security in the garden?", "what are your opinions about the convenience of school buses to security?", "in classroom activities, what are the threats related to physical quality of school?" Teacher interview form concerning school security consists of 18 questions. At the designated dates, the interviews have been made face to face by the researcher in person. As a result of the interviews, the obtained data are recorded. After the recorded data are submitted to approval of the participants, analysis of the data has started. In order to ensure validity of the research, the data are tried to be analyzed with direct quotes of the participants.

2.4 Data Analysis

During research, the interviews are recorded with tape recorder and the interviews are put down on paper then analyzed. Opinions of the participants who doesn't allow sound recorder are written down by the researcher. Descriptive analysis method is used for the analysis of the data. In descriptive analysis method first, collected data have been conceptualized and as regards to subsequent concepts these data are arranged logically and

categorized.

3. Results

Data are analysed to view opinions of the teachers about school security, elements that affect school security negatively. Elements that threaten school security in school garden are collected under category of external threat. Results of the analysis are presented in Table 1.

Table 1. Elements that threaten security in school garden

Category	Code	Participant Code	Frequency
External Threats	Iron Doors	O1, O3, P5, P7	4
	Exit door	O1, O3, P5, P8	4
	Security Staff	O1, O2, O3	3
	Game Devices	O4, P5	2
	Staircase Railings	P7	1
	Park	P8	1
	Concrete Floor	O1	1
	Smallness of Garden	O3	4

According to Table 1, the most threatening elements for school garden is location of garden door which is given with code of “exit door” and iron door which is given with code of “iron doors”. Temporary precautions are taken to protect from iron doors such as control of students and keeping children out of doors. Absence of security staff which is given with code of “security staff” disturbs teachers the most. Due to the desire of children to go out, as precaution teachers keep watch at the doors and students are kept away from doors. Because the floor of garden is concrete instead of grass or soil it is also stated that children’s freedom of movement is limited and this is given with code of “concrete floor”. One of the teachers stated that school security is ensured with camera and there is no situation that threatens the security. While one of the schools solves the security problem which is given with code of “game device” by taking precautions in a way that prevent accidents, the other school provide solutions with only warnings and teacher controls. Opinions of teachers are as follows;

“Iron door, iron fences, concrete floor are the elements that threaten the security. We don’t allow students to come closer to the doors. We don’t play games that require running on the concrete floor.” (O1)

Our garden is too small. Exit door is in the area that children play games. It is likely children to go out of the school. When I let children go to garden I keep assistant teacher in front of the door.” (O3)

We haven’t experience a bad accident or skipping school. We try to inform children. How do we inform them? First of all, we don’t allow the younger ones to play in garden because it lasts more them to get accustom to the school. And there is a big iron door, it is durable but still it should be changed. (P5)

Our personnel controls the school garden for rusty nails. Our staff controls staircase. We control staircases for children’s security.” (P7)

The data based on teachers’ opinions about convenience of school buses to security are analyzed. Results are presented in Table 2.

Table 2. Convenience of school buses to school security

Category	Code	Participant Code	Frequency
Registered Institution	Contracted Company	O1, P8	3
	School Bus	O2, O3	1
	Different Buses	O1, P5, P6, P7	4
School Bus	Seat Belts	O1, O2, O3, O4, P5	5
	Model	O1, O4	2
Responsible People	Child Seat	O2	1
	Driver	O2, O3, O4, P8	4
	Bus Hostesses	O1, O2, O3, P5, P8	5
	School Supervision	O3, P5, P6, P7, P8	5

The codes related to school bus security are collected under 3 different categories. The category of “Registered company” gives opinion about reliability of school buses. Only two schools which are given with code of “school bus” have its own school buses and the number of school which are contracted to a company is given with code of “contracted school bus” and there are only two schools in this matter. Code of “seating belts” which is given with the category of “school bus” is the most important quality. Code of “Model” suggest that school bus should be top model. The codes which are given in the category of “responsible people” give ideas about security of children during the time between home and school. Four teachers pay attention to quality of the driver with code of “driver”. Five teachers pay attention to code of “bus hostess” but two of them say that assistant teachers help students as bus hostesses. Teachers don’t have a direct responsibility with “school supervision” but it is stated that teachers supervise students and it is also stated that teachers or school administrator do control school buses. Regarding these matter teachers opinions are as follows;

“School buses belong to our school. There are seat belts and child seats. Assistant teachers help students as bus hostesses.” (O2). “Our school buses come from a single company. They pay attention to security. There are hostesses in all the school buses. Identity information and criminal records of the drivers are available in school.” (P8)

Analysis of opinions related to precautions to increase the convenience of school buses to security is shown in Table 3.

Table 3. Precautions to increase the convenience of school buses to security

Category	Code	Participant Code	Frequency
Responsible People	School Bus	O1	1
	Assistant Teachers	O1, O2, P7	3
	Training of Driver	O2, O4, P5, P6, P7, P8	6
School Bus	Maintenance	O2, P8	2
	Model	O4, P8	2
	Security Belt	O4, P8	2
	Child Seat	P8	1

According to chart, the fact that school which is given with code of “school bus” has its own school bus has the least frequency. Code of “training of drivers suggests that bus drivers should take education in areas of traffic rules, communication and child psychology. Code of “control of drivers” suggest that drivers should be inspected by assistant teachers. The category of “school bus” suggest that drivers should do annual maintenance and vehicle control. Code of “Model” suggests that school bus should be top model. Code of “seat belt” suggests that school buses should have seat belts. Code of “child seat” suggests that school buses should have child seats. Regarding this matter teacher’s opinions are as follow;

“School should have its own school buses and assistant teachers should work as hostesses.” (O1)

“Maintenance of school buses should be carried out regularly. Bus drivers should take education regularly.” (O3)

“If a different person wants to take a child from school bus, school hostess will not let it happen.” (P7)

The data which is obtained from teachers’ opinions about the security of entrance and exit of school are analyzed. Results are presented in Table 4.

Table 4. Security of entrance and exit of school

Category	Code	Participant code	Frequency
Security of Entrance and Exit of School	Picking up Children	O1, O2, O4, P5, P6	5
	Dropping off Children	O1, O2, O4, P5, P6	5
	Informing Parents	P5, P7	2
	Identity Control	O2, O3, P7, P8,	4
	Camera System	O1	1

Teachers pick up students in the morning and assistant teachers drop off the students. We do identity control to strangers.

“Teachers pick up students in the morning and assistant teachers drop off the students. And also we have camera systems.”O1

“Children are welcomed by teachers. We do identity control to strangers before we let them to take children. Assistant teachers drop off the students.”O2

“School buses are welcomed by security staff on entries and school hostess pick up the students.”P8

Data which are about convenience of school corridors and restricted area to school security are analyzed. Results are presented in Table 5.

Table 5. Convenience of school corridors and restricted area to school security

Category	Code	Participant Code	Frequency
Internal Threat	Staircases	O2, O3, P5, P6	4
	Floor	O1, O2, P6,	3
	Wideness of Corridor	O1, O3, O4, P5, P6, P7, P8	7
	Lighting	O1	1
	Extra Objects	O1, O2, P5	3
	Sharp Edges	O2	2

The codes that are given in Table 5 describes situations that are under “internal threat”. According to O1, P6, P7 and P8 wideness of corridors are enough and there are no threats for security. In code of “staircases” the problems and the precautions are mentioned.

“Corridors are wide, comfortable and bright but granite floor is threatening”. (O1)

“Floor should be dry, there shouldn’t be sharp edges, there should be doors in front of staircases.” (O2)

“Our school corridors are narrow, restricted areas are not enough. Classes are too close to staircases.” (O3)

The analysis results about precautions that need to be taken in order to increase security in school corridors and restricted areas are shown in Table 6.

Table 6. Precautions that need to be taken for security in school corridors and restricted areas

Category	Code	Participant Code	Frequency
Interior Precautions	Floor	O1, O4, P7, P8	4
	Corner Protectors	O2, O4	2
	Staircase	O2	1
	Corridor	O3, O4, P8	2
	Furniture	O3, P8	2
	Information	P6	1

According to acquired findings, it was stated that “ground”, as a code having highest frequency, needed not to be slippery, but laminate and soft ground. The only precaution taken regarding stairs code which has just one frequency is presence of doors next to stairs. “Corner protectors” code represents the views reflecting that it’s necessary for sharp stuffs, wall edges, or substances like radiators to be covered and “property” code the views reflecting that there should not be too much property in their activity areas that will cause children to trip and fall. “Information” code, also having just one frequency, reflects the code that children should be informed for dangers by their families at homes. The opinions of some teachers are as follows:

“Our sharp corners are covered with corner protectors and there are doors next to the stairs.”
(O2)

“Covering must be done for surrounding of radiator segments. The wall edges must be covered. The ground must be up and down, the class and the corridor must be connected to each other at the same level.” (O4)

“There shouldn’t be some dolls around children’s activity areas that will cause them to trip and fall, elements like colons and pillars that will confine their movements. The grounds shouldn’t be slippery.” (P8)

The opinions concerning security precautions in school lavatories are acquired by the negotiation form and analyzed. Results of the analysis are presented in Table 7.

Table 7. Security precautions in school lavatories

Category	Code	Participant Code	Frequency
Hygiene Based Threats	Size of Sinks and Toilets	O1, O3, O4, P5, P6, P8	6
	Slippery Floor	O2, O3, O4, P5, P6, P8	6
	Fastening Cabinets	P5	1
	Fastening Sinks	P6, P7, P8	3
	Mirrors	O1	1

According to acquired findings, toilets and sinks getting slippery by its very nature is considered as the biggest source of danger. Fastening sinks and cabinets to wall has 3 frequencies and it’s among the things to be considered. Some teachers’ opinions regarding the issue are as follows:

“The sinks and the toilets are in accordance with the heights of the children. They’re using them easily. The mirrors are unbreakable featured and covered with films.” (O1)

“Sinks and toilets in the school should be in accordance with children’s heights, they should be used easily, the floor shouldn’t be slippery, sinks should be mounted well-grounded.”
(P6)

“In school lavatories, floor shouldn’t be slippery and generally non-slip carpets should be

laid upon it. Sinks must be mounted upon wall and their screws should be checked from time to time. The toilets and sinks appropriate for the age groups should be used.” (P8)

The opinions concerning precautions that needed to be taken in order to increase security in schools toilets was acquired by the negotiation form and analyzed. Results of the analysis are presented in Table 8.

Table 8. Precautions that need to be taken in order to increase security in school lavatories

Category	Code	Participant Code	Frequency
Hygiene Based Precautions	Non-slippery	O1, O2, O4, P5, P7	5
	Wide Field	O3, O4	2
	Number of Lavatories	O3	1
	Mirrors	O3, P5	2
	Fastened Furniture	P5	1
	Doors	O4, P6	2

The most important one among the codes given under the category of “hygiene-based precautions” is “non-slip” plastic floor carpet which requires to be used due to wet floor. Apart from this, it’s recommended that sinks and cabinets are fastened, lavatory area is extended, bolts are affixed to doors, and mirrors made of unbreakable glass are used. It’s stated that most of the recommended precautions have been taken. Some opinions of teachers are as follows:

“Non-slip security is lacking on wet floor.” (O1)

“The floors sometimes remain wet. The children slide from time to time. There should be non-slips.” (O2)

“In our school lavatories, all precautions have been taken. Only if the doors are sliding, an easier possibility of use will be provided.” (P6)

Opinions about the issue of convenience of school stairs to school’s security criteria was acquired by the negotiation form and analyzed. The results of the analysis are shown in Table 9.

Table 9. Convenience of school stairs to school security

Category	Code	Participant Code	Frequency
Staircase Based Threats	Railing	O1, P5, P6	3
	Wideness	O1, P6	2
	Door Protector	O2	1
	Floor	O1,O2,O3, P5, P6	5
	Number of Stairs	O3, P7, P8	3

According to acquired findings, it’s seen that most precautions taken are related to floor and railings. Door protectors next to stairs appear only in one school and it is mentioned only by one teacher. Some opinions of teachers are as follows:

“There are nets through the stairs. There are also railings and the stairs are large.” (O1)

“Our school is three-storey and there are door protectors at the stairs. Our stairs are made of wood.” (O2)

“I don’t think our stairs are safe.” (O4)

“There is no stairs in our school.” (P8)

Opinions concerning precautions that must be taken in order to increase security on stairs in school were acquired by negotiation form and analyzed. The results of the analysis are shown in Table 10.

Table 10. Precautions that need to be taken in order to increase security of stairs in school

Category	Code	Participant Code	Frequency
Preacutions for Safe Stairs	Railings	O3, O4	2
	Wideness	O1, P6	2
	Steepness	O3	1
	Gaps	O3, O4	1
	Door Protectors	O1	1
	Non-slippery Floor	O2	1
	Education	P5, P6	2

Table 10 is given under the category of “precautions related to safe stairs”. Among significant problems, there are stairs having broader space considering children—even spaces that will create dangers like a student falling over there, their being steep, curved, and having no railing. The precautions that will be taken are stated as to set up covering which makes floor non-slip, to put up door protector next to ending of stairs, and to warn and train students. Some opinions are as follows:

“The only risk is our stairs as being steep. There is nothing to be done for the stairs inside the building now. It must have been done during the construction time. Our stair railings could be higher. It would also be better to increase closeness of gaps for fear that a child’s head or body could go through there.” (O3)

“The stairs has no railing. There are many curves and the spaces have been arranged wide in accordance with adults.” (O4)

Opinions about the issue of convenience of school cafeteria to security criteria of school was acquired by the negotiation form and analyzed. The results of the analysis are presented in Table 11.

Table 11. Convenience of school cafeteria to school security

Category	Code	Participant Code	Frequency
Food and Nutrition Based Threats	Daily Product	O1, P6	2
	Cook	O1, O4, P5, P6, P8	5
	Table-Chair	O1, O4, P7, P8	4
	Floor	O2, O3, P6, P7, P8	5
	Stairs	O3	1
	Meal Service	O2, P4	2
	Cleaning	P6, P7	2
	Fragile Stuff	P5	1
	Stove Danger	O4	1
	Fire Extinguisher	O1	1

Table 11 reflects the most important security problem regarding to cafeteria under the category of “meal and nutrition based threats” by the codes “cook”, “floor”, and “table-chair”. According to teachers, it’s important for the school having its own cooks. The most mentioned security problem is about floors not to be slippery and chairs-tables to be round nosed. “Food service” code represents the matter about meals not served hot and the risk for children to spill meal while serving on their own. Some opinions of teachers about the issue are as follows:

“Products are bought on a daily basis. We have our own cook. We have fire extinguishers. The tables are of wood and their edges are round. The chairs are of plastic.” (O1)

“We have no cafeteria in our school. In front of the kitchen, we’ve put one table on a field

that has capacity for only one table. Each class, one by one, comes and eats their meal and goes. The children sits at the very near of the oven and stove in the kitchen. I think it's dangerous. It's very easy for them to reach towards the place where meal is cooked, so meals or some hot stuff might be spilt over them. A housewife cooks our meals." (O4)

"The most important thing for us in the cafeteria is primarily cleaning. The personnel are often warned to wear aprons. We demand them to use gloves while preparing service. The tables and chairs in our cafeteria were arranged so as not to fall down, that's because the floor is slippery." (P7)

Opinions concerning the precautions that must be taken in order to increase security of school cafeteria were acquired by the negotiation form and analyzed. Results of the analysis are shown in Table 12.

Table 12. Precautions that must be taken in order to increase security of school cafeteria

Category	Code	Participant Code	Frequency
Precautions for Safe Food and Nutrition	Floor	O1, O2, P6, P8	4
	Cook	O4, P6, P8	3
	Wideness	O3, O4, P6	3
	Tables-Chairs	O2, P8	2
	Fire Extinguisher	O3	1

Table 12 "The most considered issue is the precautions that must be taken against slipperiness of floor, which is given with the code of "floor". The precaution reflected by the code of "wideness" is to extend dining hall more and the precaution reflected by the code of "cook" is related to the issue that a cook belonging to school should make meals. These two precautions have 3 frequencies. The teachers expressed their ideas as following:

"Slippery floor must be covered with laminate in our school cafeteria." (O1)

"Cafeteria should be wide enough so that children won't approach near of the place where meal is cooked. There is fire extinguisher in the kitchen, but another one must be kept on the side of the cafeteria." (O3)

"Primarily, we should have a wide-field cafeteria. Meals should be done by a cook." (O4)

"We have a cook in our school. The tables and chairs are fitted to children's heights. The wall is covered with faience up to the ceiling. There's not any problem regarding to security in our cafeteria." (P8)

Results of the analysis concerning opinions about the issues of the elements threatening security which are caused by physical property of class in class activities, and precautions are presented in Table 13.

Table 13. Precautions against threatening factors for security which are caused by physical qualities of class

Category	Code	Participant Code	Frequency
Threats inside School	Cabinets	O1, O2, O4, P5, P6, P8	6
	Electric Wirings	O1, O2, O3, P5, P6, P8	6
	Sharp Objects	O1, O4, P5, P6, P7, P8	6
	Floor	O1, P5, P6	3
	Windows	O2, P5, P6, P8	4
	Balcony Door	O3	1
	Finger Protectors	O2, O4	2

According to acquired findings, the most considered qualities are fastening cabinets to wall and making them in accordance with children's heights, locating electric wirings to a position where children cannot reach or to a

secret place, and furniture or facilities used in classroom which are not sharp-edged. As a precaution, it's paid attention to use corner protectors, plastic or wooden material rather than iron, and substances with blunt edges. One of the matters referred by the code of "window" is children hanging from windows on the second floor. As a precaution, there are railings halfway up, nevertheless, it poses a security problem. For the problem in another school, the precaution is taken by placing a cabinet to front of windows which go to the ground. To have two way opening windows are considered as safe. It's generally seen that awareness regarding windows security and precautions taken are insufficient. While the fact that balcony door cannot be locked and there are also windows might pose a security problem, it's contented with observing and warnings of teachers as precaution. The precautions given by the code of "floor" and aiming at slipperiness of floor are in the way that will make it carpet or laminate. Opinions of some teachers about the issue go as follows:

"The power plugs in my class are reachable by children. They must be in a place where they couldn't reach. There is also an exit door to the balcony and the door can't be locked." (O3)

"The edges of our tables are pointed. There is no protector on doors that will prevent finger crush. The cabinets must be attached to wall because they are higher than heights of the children." (O4)

"Because the windows go to floor, we put some low cabinets in front of them. The pointed edges were made rounded. High cabinets were attached to wall. The floor covering has easy-clean feature. Cables are not exposed and fronts of the plugs are closed." (P6)

"Furniture is low and has blunt edges. Electric wirings are hided. There isn't any high cabinet. We use cabinets in accordance with children's heights. The building is one storied, that's why windows pose no danger." (P8)

Opinions about the precautions that have been taken concerning emergencies in school such as natural disaster, fire, and accident have been obtained by the negotiation form and analyzed. Results of the analysis are presented in Table 14.

Table 14. Precautions taken for emergencies such as natural disaster, fire and accident in school

Category	Code	Participant Code	Frequency
Precautions for Emergencies	Fire Extinguishers	O1, O3, P5, P6, P8	5
	Fire Alarm	O3	1
	Drug Cabinet	P6	1
	Drills	O1, O2, O3, P5, P6, P7, P8	7
	Meeting Place	O1	1
	Trainings	O4, P5, P7	3
	Emergency Plan	P5, P6	2
	Emergency Exits	O2, O3, P7, P8	4

According to Table 14, the code of "drill" is one of the most taken precautions. It's seen that drills are done nearly in every school. Opinions of some teachers about the issue are as follows:

"We have fire extinguishers on every storey and a meeting place for emergencies. We do drills." (O1)

"Necessary trainings are given by authorities from civil defense unit." (O4)

"Every year we make students attend to earthquake drills. First of all, we train them about the issue. We make them watch necessary instructive CDs. Apart from this, we show them emergency exits during drills. We haven't done it yet, but we'll probably do in October when it's completely understood." (P7)

"We have fire extinguishers in our school and their maintenances are regularly done. We apply drills in case of natural disasters and fires. Our emergency exits are sufficient and we have 3 exit doors." (P8)

The findings concerning the analysis of the data obtained by opinions regarding to informing teachers about the precautions taken concerning emergencies in school such as natural disasters, fires, and accidents are shown in Table 15.

Table 15. Informing teachers about taken precautions concerning emergencies such as natural disaster, fire and accident in school

Category	Code	Participant Code	Frequency
Informing Teachers for Emergencies	Trainings	O1, O2, O4, P5	4
	Charging's	O3, P5, P6, P7, P8	5
	Drills	O3, P6	2

According to acquired findings, two teachers who emphasized that any information or training wasn't done stated that they were included in teams by various charges under the code of "charge". Apart from that, the teachers saying they got training are represented by 4 frequencies given with the "training" code and the ones saying drills were done are represented by 2 frequencies given with the "drill" code. Opinions of some teachers about the issue go as following:

"Necessary trainings are given by the authorities from civil defense units." (O4)

"The duties that everyone will undertake in emergencies are certain. We inform children in our classes. We do drills in certain times." (P6)

"Their duties are notified by official letters. A civil defence unit is being formed. However, our teachers are not informed about first-aid or use of fire extinguishers." (P8)

The opinions concerning the issue of informing children about precautions taken related to emergencies in school such as natural disaster, fire and accident have been obtained by the negotiation form and analysed. The results of the analysis are shown in Table 16.

Table 16. Informing students about taken precautions concerning emergencies such as natural disaster, fire and accident in school

Category	Code	Participant Code	Frequency
Informing students for Emergency	Drill	O1, O2, O3, O4, P6, P8	6
	Slideshow	O1, O2, O3, P5, P6	5
	Instructive Games	O2	1
	Emergency Numbers	P7	1

According to acquired findings, to give students information is done by the way of practice at most. In addition, slideshows, instructive games and emergency numbers are among the educations that must be given. Some teachers expressed their opinions as following:

"We do drills and give information together with the authorities from AKUT. We watch slideshows and instructive CDs." O3

"They also show materials accompanied by presentations to our students." P5

"We do drills. We tell them the points they must take care of while leaving the school or meeting downstairs and we make them watch instructive videos." P6

"We usually take these into our issues. We necessarily teach the children the emergency numbers. Five-age groups usually learn this and we even observed among little ones. The children observe what we do at accidents in our daily lives, and in emergencies, or how we intervene in while a friend hitting his leg, for example." P7

4. Discussion and Conclusion

In the research, the opinions concerning precautions for security in school have been categorized as the internal and external factors. Similar categories are also seen in some researches that have been done before. For instance, in a research concerning human and environment based factors, Piper and Owens (2002) emphasize that local authorities must be warned so that school environment won't be exposed to drug remnants. The research findings show that the most important risk factors in schools appear due to faulty design of them. Lots of arrangements that pose risks such as location of school which is related to both interior and exterior places, surrounding, wideness of garden, stairs in multi-storey buildings, wideness of classes, distance and connections between class and corridor, materials used on the floor, establishments—such as electric wiring, plumbing, and heating system, doors, windows, and balconies are among the properties that must be considered and managed during designing process. Lea and Polster (2010) emphasize that playgrounds inside and outside of school, restrooms, windows, and exit doors are the places primarily considered during designing process. It's evident that situations concerning school garden are among the most remarkable issues. The door, ground, wideness and natural fields in garden, playgrounds, activity areas, and parks are the physical properties of exterior place which influence developments of children and which also contain some risk factors (Gül, 2012; Güleş & Erişen, 2013; Kalburan, 2014). Lea and Polster (2010) also draw attention to designs of school buildings regarding to the issue. Design of school building is important in terms of security of school; however, education program must also be regarded in addition to certain physical standards in terms of ensuring educational activity, they point out.

The presence of a security guard and cameras which is one of the precautions taken for exterior places is the most remarkable issues. According to research findings, it's seen that teachers are uncomfortable mostly due to lack of a security guard in school. Also in the study of Özer et al. (2013), necessity of camera systems and their capacity to prevent threats are discussed and it's emphasized that camera recordings which are not regularly checked and evaluated don't really solve the issues. According to teachers, stairs pose a threat for security inside school. Besides, iron doors create risks and pose a threat because of the fact that iron is a heavy and rusty substance, and nails could come off. Apart from security problems of the interior caused by building design, human and environment based security problems appear because of inadequate awareness of people. For example, it's determined that the strangers who enter school, the cook who is responsible for meals, the school bus drivers to whom children are entrusted during coming and going periods, hostesses, and vehicles have also security gaps that could pose danger.

Though charging teachers and managers for a disaster and the drills done increase awareness, it doesn't provide for a holistic perspective. For instance, it's seen that the codes "fire alarm", "medicine cabinet" and "meeting place" are not cared although they're of great importance. Therefore, it's observed that the precautions taken for structure of school building, physically its interior and exterior part and its environment are inadequate although teachers have a general awareness about security issue; so children are warned, by which risk factors will be prevented. According to the research results, it's seen that the problems related to physical designing of school and its environment, as indicated in the study of Karal (2011), create security problems due to lack of advanced standards. According to the research results, the biggest problems of schools are created by the points that are passed over during designing process. In this sense, to control functions of school building structure and control mechanisms could directly and positively influence school security. Considering the findings acquired by the research, one can see that primary fact threatening security is stairs. Besides, considering acquired findings, it may be recommended that school buildings are constructed as single-storey and every school is legally controlled. It may also be recommended that school managers make checks in a way that will provide for security of stairs and take necessary precautions in a short time. At the same time, it requires to control the qualities of garden door such as size, building material and finger protectors in a way that make it secure. If they're not in accordance with standards, they need to be changed. It could be examined in detail to what extent the trainings and drills which have been done for emergencies and natural disasters have succeeded, or whether it has created positive changes in people's behaviors during disaster. Based on the research findings, studies examining to what extent school security trainings have succeeded could be important to increase precautions for school security in subsequent researches. In different study groups and different types, some researches based on research models in quality and quantity which is aimed at security of preschool education institutions should be done.

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