

Article

# “Recess” in the Eyes of Primary School Students: Cyprus Case

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**Abstract:** This study aims to describe what recess is like in the eyes of primary school children. At the basis of the literature of the study, the focus was on the notion of free time, and free time notion was explained based on the Planned Behavior Theory. A mixed research approach is used in the study, from both qualitative and quantitative aspects. In the qualitative dimension, students were asked to express what they understood from recess through using metaphors. In the quantitative dimension, “Leisure Satisfaction Scale”, developed by Beard and Ragheb, and adapted to Turkish in 2001, was used. Responses given by students to this scale were analyzed and their level of satisfaction during recess periods was identified. This research was performed at a primary school of the North Cyprus Ministry of National Education during the 2016–2017 academic year, selected in accordance with purposive sampling. A total of 190 students attending the 5th grade in this school constituted the study group of the research. Students consider recess as more of a time for enjoyment, game, and fun, but think it ends too soon. On the other hand, they stated that they achieved satisfaction socially, especially during recess, but, on the contrary, it was observed that their psychological satisfaction stayed at a lower level. A conclusion was also reached that certain variables (having a monitoring teacher, especially during recess periods) affected level of satisfaction of students during recess. In conclusion, based on the findings of this research, it should be stated that both teachers and school administrators have responsibility in enhancing the psychological satisfaction level of students especially during recess periods. It can be said that it will be possible to raise other satisfaction levels (physical, aesthetic, social, etc.) of students by enhancing their psychological satisfaction levels during recess.

**Keywords:** primary school students; recess; free time; North Cyprus

## 1. Introduction

Recess is defined as a break/interval during which students can go out of the classroom for fresh air or to rest [1]. According to the definition of National Association of Early Childhood Specialists in State Departments of Education [2], recess is “the break given in active time during the day, for children to play games”. This break can occur outdoors, in specifically prepared playgrounds, in sports halls, or within the classroom environment where specific areas are designated [3].

Around the world, schools provide recess periods between classes, particularly in primary education schools. In Asia and some European countries, classes of 45 min are realized with a minimum of 10 min intervals between them [4]. Recess time is a traditional relaxation time of the day for the students since it enables them to do the activities they want with the people they want. However, this time varies from time to time for a specific country and it changes from countries to countries as well. According to Jarett [5], some countries, such as Canada, shortened the recess time by emphasizing the significance of academic achievement. Regarding the recess periods all over the

world, it could be stated that, in USA, the recess periods vary by State but still each recess is at least 20 min. In Japan, classes of 45 min are realized with a period between 10 and 20 min. Moreover, this period is 15 min after the classes of 45 min in Turkey [5]. In North Cyprus, where this research was conducted, there are recess periods of 20 min between the courses of 80 min [6]. Analysis of the literature reveals that there have been serious discussions about recess periods and their qualities in many countries around the world [7]. All of the key stakeholders in the teaching process, including researchers, parents, students, teachers, administrators, and even unions, are participants in this discussion and have proposed different views on recess. Looking from the perspective of the students, the critical questions in the debate are: “Should there be a recess in pre-school education?”, “Are the amount and duration of recess periods in primary schools sufficient for students?”, and “Are students satisfied by the recess periods provided in primary schools?”

Studies in the literature show that students are both physically relaxed and cognitively developed during recess, and therefore it is emphasized that recess periods are an essential element of education [3,8–13]. Since recess has many positive aspects, as stated in the literature, it is also evident that the abovementioned topics of discussion should be researched further. Based on the research findings about recess mentioned above, it has also been stated that an increase in problem behaviors (e.g., students fighting with each other) is observed among students during recess periods. For example, in the study by Özbıçakçı et al., it was determined that, while the noise levels during recess periods in many European countries and in the USA varies between 40 and 70 dB, in Turkey, the noise levels are higher (80 dB and above) [14]. The level of noise in question can be hazardous for human health. It has also been suggested that the requirement for teachers to supervise students during recess periods can result in extra time spent in the work environment, which can lead to increased exhaustion from the greater workload. In addition to these topics, it is also observed that discussions have been initiated on the decreasing recess periods, which have been demonstrated to be extremely important for student development. On the other hand, other studies have determined that teachers do not find recess periods to be sufficient, and they do not get enough rest [15,16]. All these problems and discussions point to the necessity for further research on the topic of recess in the context of North Cyprus.

In this study, recess, a period of time in which students find the opportunity to develop themselves individually, learn by doing and living, combine their learning with an interdisciplinary approach and apply this outside the classroom, and are supervised by a teacher, is analyzed based on “Planned Behavior Theory”, and within the framework of the concepts of “free time” and “free time activities lesson”. Today, schools in many countries such as USA, Belgium, France and Japan are instruction-based and more inclined to only provide cognitive education. However, this study is considered to create awareness by emphasizing the importance of students receiving “free time management training”. It is of significant importance that they spend their free time in a qualitative manner, both within and outside the classroom environment. Therefore, it is believed that research into free time activities (and recess periods as a sub-topic) in educational programs within the concept of enhancing the quality of education is worthy of further consideration.

### *1.1. Theoretical Framework*

#### *1.1.1. Free Time Notion and Free Time in the Educational Process*

A conceptual framework has been presented for the significant concepts of this study, which are frequently used. Free time, leisure time, free time activities and free-time management are explained as follows. According to Kelly [17], free time is the discretionary time that remains after meeting work obligations and self-maintenance requirements. In the same way, leisure time can also be defined as time during which one may choose what one does. Mannell and Kleiber [18] defined leisure time as the time remaining after meeting the obligations of everyday life, such as paid work, household chores, caring for others, school work, personal maintenance, and other obligations usually seen as necessities.

According to Charlesworth [19], free time activities, the optimal use of free time, and the evaluation of free time are all issues worthy of academic research.

Wang and Kao [20] developed the concept of free-time management for the first time. In their study, measurement of free-time management was constructed based on a literature review and consultation with five professors. Five dimensions of free-time management were proposed: “goal setting and evaluating” indicated the ability of individuals to prioritize goals and tasks to be completed during free time; “technique” indicated the ability to organize free time and to collect relevant information in advance; “values” indicated the perception of free time as a valuable and happy period of time; “scheduling” indicated the extent to which individuals consider planning for free-time activities important and necessary; and “immediate response” indicated individuals have the ability to reschedule free time when the original plan cannot be implemented. It was hypothesized that when free time could be used under planning and management, it could be helpful in reducing the occurrence of leisure boredom.

Actually, free-time management indicates that individuals use their uncommitted time in a well-planned and efficient way by setting goals and priorities in organizing their activities; these are important guidelines [21,22]. The concept of “free time” first emerged in Western Europe and in USA in the 19th Century with the onset of industrialization [23]. As a result of industrialization, in addition to the increasing work hours, the “after work” time of people was also assigned the same level of importance as their work time [24]. The concept of “Free Time” is defined by the International Free Time Inspection Group as: “A series of deals a person can undertake at his/her own free will, such as resting, entertainment, developing knowledge or skills, participating in social life, after completing his/her occupational, domestic and social duties” [25].

The importance of free time and its positive contributions on people’s lives, as well as its effect on individuals’ quality of life physically, socially, and emotionally has been researched by Gökçe [26], Kovacs [27], Ngai [28], Pearson [29], and Trenberth et al. [30]. Şen stated that the benefits of free time on the individual are that it improves physical and spiritual health, it facilitates the socialization process, it develops personal skills and abilities, it develops creative power, it increases work success and productivity, and it makes students more content [25].

To keep abreast with the developing world in the contemporary educational process, it is essential to follow technological developments and to implement educational activities together with technological innovations. This generated the necessity to change traditional educational-teaching activities and to implement extra-curricular activities using technological developments in a learner-centered environment. According to Yeşilyaprak, the traditional educational approach of loading the student with knowledge and only focusing on intellectual development has now been replaced with a new approach in modern educational systems [31]. Based on this new approach, the concept of the “Free Time Activities” lesson was conceived, not only to support the intellectual development of students, but also their development in all fields.

With the free time activities lesson that is now included in modern curricula, it has been observed that students feel that they are more active psychologically, safer, and with reduced levels of anxiety [32]. Furthermore, it has also been observed that free time education can develop certain characteristics in students, such as thinking, righteousness, love, excitement, and wisdom [26]. According to Torkildsen, the freedom of students, their awareness of how to use their free time effectively, and planning skills have increased with the free time lesson implemented in schools [33].

Dündar and Karaca stated that free time activities have already been established in school curricula as a lesson in various countries [34]. Nevertheless, as Bozpolat relays, the arrangement of weekly schedules of primary schools in Turkey, and “free activities” implemented during the first five years of primary education under the heading “elective lessons”, was realized in 2010–2011 [9]. In North Cyprus, the concepts of “free time lessons” or “free time activities lessons” were proposed to be introduced into the primary school curriculum within the Primary Education Programs Development Project, which began in 2014, although this has yet to be completed. Instead,

“educational activities” are reflected in the weekly lesson schedules designed by the North Cyprus Ministry of National Education, encompassing the 2nd level of primary students (9–11 years), which occur in the afternoons. Unfortunately, these lessons are not executed with the scope of the abovementioned “free time activities” concept. They are predominantly used to train school teams, or for preparing students for ceremonies during specific days and weeks; moreover, the social and affective development of students are not taken into consideration.

### 1.1.2. Planned Behavior Theory

Planning is very important in ensuring that free time lessons that are incorporated into educational programs are productive. Planning free time activities can be explained within the concept of “Planned Behavior Theory”. The original title of Planned Behavior Theory is “The Theory of Planned Behavior”, and was proposed by Fishbein and Ajzen in 1975 by developing the Deliberative Action Theory [35]. It was later re-designed in 1991 by Ajzen [36]. According to this theory, social behaviors of people are controlled by specific factors, and they arise from specific causes and appear in a planned way.

For the planned behavior to emerge, aims toward the behavior need to be specified. In specifying these aims, certain dimensions are prominent. The first of these is “attitude towards the behavior”, which is a personal dimension and encompasses positive and negative evaluations of the individual that activates the specific behavior. The second one is the “subjective norm”, which shows how much the individual respects and conforms to the thoughts of those reference groups in the environment while displaying the expected behavior that is defined as a perceived social pressure. The final dimension is “perceived behavior control”, which expresses the perceived level of difficulty of the behavior before implementation [36,37].

In this study, the abovementioned dimensions of Planned Behavior Theory were taken as the basis and research questions were subsequently established. For example, the experiences of primary school students during recess periods or, in other words, their own behaviors, were analyzed and the amount of satisfaction that they obtained was researched (in the quantitative dimension of this study). Based on this context, the attitude dimension of the Planned Behavior Theory towards behavior is taken into account. On the other hand, the objective was also to evaluate the convenience and difficulties that children experience during recess periods, and how the teacher and peer groups affect the students (in the qualitative dimension of the study). The subjective norm and perceived behavior control dimensions of the Planned Behavior Theory were considered for this aim.

### 1.2. Aim and Scope

The aim of the study is to reflect the situation in North Cyprus primary schools in terms of recess. The paper is to establish the perceptions of 5th year students on recess and whether they achieved satisfaction during recess. It is thought that the findings of the study will be significant in revealing the importance of “free time activities lessons” and “free time management”, and will elucidate on the curriculum changes that can be made in that direction. It is also thought that the subject of recess in the educational systems of other countries will be researched and comparisons will be made, based on the findings in the present study in North Cyprus.

In summary, this study aims to portray the present situation in North Cyprus primary schools, related to the topic of recess. In this study, the primary aim was to establish the perceptions of 5th year students on recess, based on the metaphors they used in their descriptions. Subsequently, it was attempted to establish whether students achieved adequate satisfaction during recess periods. In conclusion, the problem statement of this study was “How is recess perceived from the perspective of primary school children?” The following two sub-problems were established in relation to this problem statement:

1. How and through which metaphors do primary school students define the concept of recess?
2. What are the satisfaction levels of primary school students during the recess periods? Are their satisfaction levels during recess periods differentiated in a significant way based on different variables (gender, having a sibling, etc.)?

## 2. Method

### 2.1. Model

The manner in which students perceive and define recess was established in this study in accordance with the qualitative approach. On the other hand, the satisfaction level of students during recess periods was identified according to the quantitative approach. The qualitative and quantitative findings were combined within the context of the recess topic and were subsequently reviewed.

### 2.2. Study Group

The study group of this research is comprised of students at a primary school under the Ministry of National Education in North Cyprus, during the 2016–2017 academic year (a primary school in the Famagusta district of Cyprus). The authors selected the students at the primary school in which they work, in accordance with purposive sampling. Thus, the students included in this study, according to purposive sampling, were selected with regard to the “easily accessible case sampling”. The reason for selecting these students was to provide speed, efficiency and practicality to the study. In conclusion, the study group of the quantitative research was 180 students; 8 of them were eliminated and 172 were remained. The qualitative research consisted of 190 (82 girls and 98 boys) students, in which 4 were eliminated and 186 were included. These students were 10–11 years old, and were in their 5th year of primary school. In line with the literature, the reason for choosing 5th year students was that free time activities in North Cyprus are only included in the curriculum for this age group and, therefore, it was not necessary to ascertain the opinions of students in lower year groups on this topic.

### 2.3. Setting

The school of the study was the most crowded primary school of the city of Famagusta in Cyprus. Apart from the administrative buildings, the school has 19 classrooms, 3 activity rooms (for painting and music lessons), 45 m<sup>2</sup> sized cafeteria, sports room with sports equipment, and 150 m<sup>2</sup> multidimensional hall suitable for theatre and exhibitions. In this hall, there are mattress, ropes and hoops for sport activities and a projector that can be used for watching TV under the supervision of a teacher. The outer garden of the school is covered by of wires and walls. The 500-m<sup>2</sup> garden has great trees and some plants. Besides, volleyball, basketball and football fields with tribune, playground, sand pool, and wooden benches under the trees are found in the garden.

### 2.4. Data Collection Tools

The quantitative data of the study were collected using the “Leisure Satisfaction Scale/LSS” developed by Beard and Ragheb (long form), which was subsequently redesigned in its short form in 1992 [38]. The scale was originally developed in English and was then adapted to French [39], and Korean [40], with the aim of establishing free time in their respective communities. The Turkish adaptation of the scale was conducted by Gökçe and Orhan and, as a result of the validity and reliability studies, it was established that the scale was suitable for Turkish [41]. The free time notion used in the scale and in the present study in general is limited to the “recess” time period during school hours. This can be regarded as a limitation of the research; however, the aim is to perform more in-depth analysis to achieve more detailed research findings by focusing particularly on recess.

The applied LSS consists of six dimensions, namely the aesthetic, relaxation, physical, educational, social, and psychological dimensions. With a total of 24 items, there are 4 items in the scale for each

dimension. The scale, made up of these items, was preceded by “personal information”, was distributed to 190 students by the researchers, and was later collected and analyzed.

The qualitative data of the study were obtained through metaphors used by the students to express their opinions on recess periods. A metaphor is a word or phrase that explains an event, fact, or notion by analogizing it to another event, fact, or notion. A metaphor explains a notion by likening it to another notion. These two notions can be very much alike or can be completely different [42]. A metaphor is a means of conveying one significant situation to another and defines an object by basing it on some other situations [43]. In this study, primary school students were primarily asked to record their perceptions on the notion of “recess” in writing by focusing solely on a metaphor, and were later encouraged to explain the reason behind their choice of metaphor. Students were each given an A4 sized prepared sheet of paper. On this paper, the students were expected to complete the sentence “Recess is like . . . , because . . . ”. After the papers were distributed, they were allocated 30 min to write their metaphors on the notion of “recess”, and later explain why they had chosen that particular metaphor.

### 2.5. Analyzing the Data

The SPSS 24 program was used to analyze the quantitative data during the data analysis phase of the study. For the statistical analysis of the collected data, the Kolmogorov–Smirnov and Levene’s tests were applied to test the normality of data distribution and for the uniformity of variances. According to the findings obtained through the Kolmogorov–Smirnov test, it was observed that the data were normally distributed ( $p > 0.05$ ) for some of the independent variables, and thus parametric tests were used. For the other independent variables, it was observed that the data were not evenly distributed ( $p < 0.05$ ), and therefore non-parametric tests were used for these variables. According to the Levene’s test results, the variances appeared to be homogenous ( $p > 0.05$ ). Based on these results, descriptive statistics (frequency, distribution, arithmetical mean, and standard deviation) were used to analyze the study data. For the divergence analysis, *t*-test, Mann–Whitney U, ANOVA or Kruskal–Wallis tests were used, while the Pearson Correlation test was utilized for correlation. As a result of the variance analysis, in the case of a significant statistical difference, the post-hoc Tukey test was used, as an advanced analysis test statistic. In the divergence and correlation analysis, the value of significance was accepted as 0.05. For the purposes of assessing the averages in the descriptive statistics, based on format of the 5-item Likert type scale, the lowest item was given 1 point, and the highest was given 5 points. Therefore, the item averages varied between 1 and 5.

For the analysis of the qualitative data, the following stages were implemented, as stated by Saban cit. [44].

(i) Sorting Stage: The papers written by the 190 students who participated in the research were examined based on four conditions (a metaphor was clearly used in the writing, only one metaphor was used, the students answered the question “why”, and the written metaphors logically defined the notion of “recess”). The resultant analysis determined that the writing submitted by 186 of the students complied with the research criteria and were therefore accepted for use in the study. (ii) Compiling Sample Metaphors Stage: Four students were omitted from study with the data from 186 students considered to be valid. Overall, the 186 students used a total of 60 different metaphors, and 32 of these were written only once. Subsequently, 28 of the metaphors were listed from top to down based on the frequency they were written. Additionally, 32 of them were alphabetically listed, since they were written only once. (iii) Development of Categories: The data of the research were assessed using the “content analysis” method. Since there were no explanatory categories on the concept of “recess” in the literature, the researchers created their own categories. (iv) Validity and Reliability: Internal consistence and significance of qualitative findings were given attention for the internal validity of the study; to ensure external validation, essential explanations were given so that the findings could be accessible for future researchers. To validate the internal reliability of the analysis, the authors were individually assessed the 35 randomly chosen papers to verify whether the authors were consistent in

creating categories. As a result of calculations made according to the formula created by Miles and Huberman ( $\text{Reliability} = \text{Consensus} / (\text{Consensus} + \text{Difference of Opinion})$ ),  $(28/28 + 7)$  a consistency of 80% was reached. Since the consistency of the research was above 70%, it was accepted as reliable according to the analysis of Miles and Huberman [45]. However, all three authors collaborated during the process of analyzing the qualitative data and conducted the analysis together to prevent possible differences of opinion among the authors.

### 3. Findings

The qualitative findings of the study are presented under three headings: (i) List of metaphors that students used related to the concept of “recess”; (ii) Classification of the metaphors that the students used (concrete-abstract, animate in animate); and (iii) Interpretation of the explanations students provided after writing the metaphors, using content analysis.

In Table 1, out of the 186 primary school students whose responses were used in the research, a total of 61 different metaphors were related to the concept of “recess”. The most frequently used metaphors in order were “Game” (10.21%), “Amusement” (9.67%), “Break” (6.45%), and “Need” and “Ice-cream” (5.37%). The metaphors mentioned only once were: pear, paint, crisps, strawberry, gossip, change, nature, home, film, inessential, rights, peace, desire, canteen queue, door, cat, butterfly, myself, bird, fruit juice, happiness, hotel, learning, teacher, boring situation, bottle, recess, ball, volleyball, helping each other, and bell.

**Table 1.** Metaphors of students on the notion of “recess”.

List of Metaphors on the Notion of Recess					
Metaphor	f	%	Metaphor	f	%
Game	19	10.21	Dream	3	1.61
Amusement	18	9.67	Friendship	3	1.61
Break	12	6.45	Water	3	1.61
Need	10	5.37	Snack	3	1.61
Ice-cream	10	5.37	Free time	3	1.61
Heaven	7	3.76	Basketball game	2	1.07
Freedom	7	3.76	Sweet	2	1.07
Football	7	3.76	Lesson	2	1.07
Relaxation	6	3.22	Everything	2	1.07
Friend	5	2.68	Adventure	2	1.07
Chocolate	5	2.68	Time	2	1.07
Holiday	5	2.68	Time for ourselves	2	1.07
Sleep	4	2.15	Pepper	2	1.07
Question	4	2.15	Mentioned once	32	17.20
Match (Game)	4	2.15			
			<b>Total</b>	<b>186</b>	<b>100</b>

According to Table 2, the 186 primary school students participating in the research used 107 (57.52%) concrete metaphors, and 79 (42.47%) abstract metaphors related to the concept of “recess”. Furthermore, 14 (7.52%) of the concrete metaphors represented animate beings, and 93 (50%) of them represented inanimate beings. The most frequently used concrete metaphors were: for animate beings, “friend” was used 5 times (2.6%), and for inanimate beings, “game” was used 9 times (10.21%). The most used abstract metaphor was “amusement”, which was used 18 times (9.67%).

**Table 2.** Classification of metaphors students used related to the notion of “recess”.

Classification of Metaphors Related to the Notion of Recess as Concrete-Abstract and Animate-Inanimate				
		Concrete and Abstract Metaphors	f	%
CONCRETE	ANIMATE	HUMAN: Friend, Myself, Teacher ANIMAL: Cat, Butterfly, Bird PLANT: Pepper, Strawberry, Pear	14	7.25
	INANIMATE	Game, Break, Ice-cream, Football, Match, Chocolate, Holiday, Question, Water, Snack, Lesson, Sweets, Home, Nature, Recess, Paint, Fruit juice, Bell, Hotel, Gossip, Crisps, Volleyball, Film, Door, Ball, Bottle, Canteen queue, Basketball match	93	50
ABSTRACT		Amusement, Need, Freedom, Heaven, Time, Relaxation, Dream, Friendship, Everything, Wish, Right, Adventure, Change, Peace, Happiness, Sleep, Life, Helping each other, Learning, Boring, Personal time, Free time, Idleness	79	42.47
Total			186	100

Table 3 shows that a total of 74.73% of the students who participated in the study concentrated on their experience of recess; in other words, they elaborated on their perception of the meaning of recess. This finding is given the theme of the function of recess. Under the main theme of the function of recess, themes such as joy and game (41.40%); meeting needs, break, and resting (23.66%); freedom (6.99%); right (1.08%); boring and unnecessary (1.08%); and cooperation and sharing (0.54%) were all found. Some of the student opinions on these themes are shown below:

*“Recess is a time for fun, because we do many pleasant things. For example, we swing, slide, play hide and seek, chat”. (S125, Amusement, joy and game)*

*“Recess is a break time. I can drink water, eat, go to toilet, have rest and relax”. (S8, Meeting needs, break, and resting)*

*“Recess is like heaven, because we are free, independent, and we can do anything we want. Recess is valuable, like gold; because we are free as birds and as peaceful as lions”. (S102, Freedom)*

*“Recess is an important right of ours. We need to rest our minds during recess, without getting tired, in order to start the next lesson with vigor”. (S109, Right)*

*“Recess is like hot pepper, because there are fights, shouting, sulking, and similar bad behavior during recess. We also wander around idly”. (S28, Uneasy and unnecessary)*

*“Recess is like friendship. Just as we share everything with our friends, we share all during the recess, and we cooperate with everybody”. (S166, Cooperation and sharing)*

In this research, some of the students (20.97%) focused on the duration of the recess, in addition to its function. They focused on the fact that the duration of the recess was too short (16.13%), it is a period of time with a fixed beginning and an end (3.76%), or that its duration increased and decreased, making it changeable (0.54%). Some student opinions on these themes are as follows:

*“Recess is like a melting ice-cream. It is very good, sweet, but finishes too soon”. (S44, Short duration)*

*“Recess is like a lesson, because it begins and ends. As time goes by, it becomes less and then ends”. (S68, Time slice with a fixed beginning and an end)*

*“Recess is like a lesson. The teacher stretches the lesson or shortens it as he/she sees fit. Recess is like that. The teacher rings the bell early and shortens the recess whenever he/she wants, or sometimes makes it longer”. (S64, Time period with an increasing or decreasing duration)*

Finally, some students associated recess to things using metaphors, but when the explanations of those metaphors were examined, a certain meaning was not reached, and hence, the authors could not assign them to specific themes. For example, “Recess is like nature, because we couldn’t have a recess if there were no trees” (S178). No themes were found in similar opinions from nine students (4.84%), as shown in the table.



**Table 3.** Content analysis of metaphor explanations, related to the notion of recess

Main Theme	Theme	F	%	Total
FUNCTION	Amusement, Joy and game	77	41.40	139 (74.73%)
	Meeting needs, break, and resting	44	23.66	
	Freedom	13	6.99	
	Right	2	1.08	
	Boring and unnecessary	2	1.08	
	Cooperation and sharing	1	0.54	
TIME UNIT (DURATION)	Lasting short (ending soon)	30	16.13	38 (20.97%)
	Fixed slice of time	7	3.76	
	Increasing or decreasing (changing) period of time	1	0.54	
MEANINGLESS	No theme found	9	4.84	9 (4.84%)
	<b>Total</b>	<b>186</b>	<b>100</b>	<b>100</b>

The quantitative findings of the study are presented under three headings: (i) Distribution of the student scores on the Leisure Satisfaction Scale/LSS (Tables 4 and 5); (ii) Comparison of scores students on the Leisure Satisfaction Scale/LSS, based on different variables (Tables 6–11); and (iii) Correlation of the students' scores in the sub-dimensions of the Leisure Satisfaction Scale (Table 12).

Table 4 shows the distribution of responses that the students gave to the LSS. The items students agreed with the most (average 4 or above) were observed in the social and relaxation sub-dimension items of recess. The item "Recess enables me to interact with my friends socially" was found to be the scale item that the students agreed with the most, with the highest average. The item "Recess seems very interesting for me" (in the psychological sub-dimension of the scale) had the lowest average, indicating that the students agreed with it the least.

The total points of the 172 students who completed the LLS, from the six sub-dimensions and from the overall scale, are shown in Table 5. According to this, the highest average was in the "social" sub dimension with a value of 3.91, and the lowest item point was 2.77 in the "psychological" sub-dimension. The overall average score for the scale was found to be 3.36.

It was also investigated in this study whether the LSS scores of the primary school students were differentiated depending on different variables. The variables on the left side of the table below were taken as the base, and comparisons were made accordingly. Rather than showing all tables and explaining all the findings, to the authors preferred to only present only the findings with significant differences in Table 6 (with asterisks).

As can be seen in Table 6, being a member of a school team or performing activities out of school did not create a significant difference in the satisfaction level of students related to recess periods. A significant difference was observed with other variables, and this is shown in the tables (from Tables 7–11) below.

As Table 7 shows, the gender of students made a significant difference on the scores they achieved in the LLS ( $p < 0.05$ ). In particular, the total scores for the physical dimension, which is one of the sub-dimensions of LLS, were affected by the gender variable. It is therefore evident that boys experienced increased satisfaction in the physical dimension during recess periods compared to girls.

A comparison of on the scores students received in the LLS depending on whether they have siblings is given in Table 8. As the table shows, students who do not have siblings experience more satisfaction in the "physical" sub-dimension compared to those who do have siblings ( $p < 0.05$ ).

In Table 9, the scores of students from the LLS are compared according to how sufficient they find recess. The findings in the table show that that the scores of students from reveal a significant difference in the "aesthetic" sub-dimension of the scale ( $p < 0.05$ ). Those students who find recess periods to be sufficient have more satisfaction in the aesthetic dimension compared to those who find recess periods to be insufficient.

**Table 4.** Distribution of responses students gave to the LSS.

	Absolutely NotRight		Not Right		Sometimes Right		Right		Always Right		$\bar{x}$	s
	N	%	N	%	N	%	n	%	n	%		
Recess												
1. is interesting for me. (Psychological)	82	47.67	41	23.84	39	22.67	7	4.07	3	1.74	1.88	1.01
2. gives me self-esteem. (Psychological)	45	26.16	41	23.84	37	21.51	41	23.84	8	4.65	2.57	1.24
3. gives me a sense of success. (Psychological)	55	31.98	18	10.47	39	22.67	41	23.84	19	11.05	2.72	1.41
4. enables me to socially interact with my friends. (Social)	3	1.74	2	1.16	6	3.49	65	37.79	96	55.81	4.45	0.77
5. helps me establish close relationships with my friends. (Social)	5	2.91	2	1.16	17	9.88	64	37.21	84	48.84	4.28	0.91
6. gives me a chance to try new things. (Educational)	6	3.49	12	6.98	44	25.58	76	44.19	34	19.77	3.70	0.98
7. helps me know myself. (Educational)	46	26.74	41	23.84	22	12.79	51	29.65	12	6.98	2.66	1.33
8. helps me learn about my friends. (Educational)	6	3.49	3	1.74	33	19.19	63	36.63	67	38.95	4.06	0.98
9. helps me relax. (Relaxation)	1	0.58	3	1.74	20	11.63	65	37.79	83	48.26	4.31	0.79
10. helps decrease my stress. (Relaxation)	4	2.33	10	5.81	34	19.77	57	33.14	67	38.95	4.01	1.02
11. contributes to my emotional well-being. (Relaxation)	10	5.81	14	8.14	33	19.19	87	50.58	28	16.28	3.63	1.04
12. helps me stay healthy. (Physical)	41	23.84	16	9.30	46	26.74	51	29.65	18	10.47	2.94	1.33
At recess,												
13. the friends I meet are friendly. (Social)	2	1.16	8	4.65	84	48.84	49	28.49	29	16.86	3.55	0.87
14. i use many different skills and abilities. (Psychological)	4	2.33	5	2.91	37	21.51	83	48.26	43	25.00	3.91	0.89
15. i increase my knowledge of those around me. (Educational)	9	5.23	9	5.23	63	36.63	55	31.98	36	20.93	3.58	1.04
16. i engage with friends who enjoy having recess. (Social)	21	12.21	21	12.21	45	26.16	46	26.74	39	22.67	3.35	1.29
17. i easily find activities to keep busy, because I like doing them. (Relaxation)	12	6.98	9	5.23	41	23.84	74	43.02	36	20.93	3.66	1.08
18. the activities I choose are physically challenging. (Physical)	42	24.42	21	12.21	54	31.40	34	19.77	21	12.21	2.83	1.33
19. i do activities that develop my physical condition. (Physical)	6	3.49	13	7.56	56	32.56	65	37.79	32	18.60	3.60	0.99
20. i do activities that physically renew me. (Physical)	19	11.05	18	10.47	46	26.74	65	37.79	24	13.95	3.33	1.18
21. the places or spaces I am in are spacious and clean. (Aesthetic)	20	11.63	20	11.63	83	48.26	26	15.12	23	13.37	3.07	1.13
22. the places or spaces I am in are interesting. (Aesthetic)	52	30.23	30	17.44	52	30.23	25	14.53	13	7.56	2.52	1.27
23. the places or spaces I am in are beautiful. (Aesthetic)	40	23.26	16	9.30	40	23.26	48	27.91	28	16.28	3.05	1.40
24. the places or spaces I am in are well designed. (Aesthetic)	48	27.91	18	10.47	23	13.37	54	31.40	29	16.86	2.99	1.49

**Table 5.** Average of total points that students got from the sub dimensions of LSS and from its total.

	N	$\bar{x}$	S
<b>Aesthetic</b>	172	2.91	1.06
<b>Relaxation</b>	172	3.90	0.58
<b>Physical</b>	172	3.18	0.76
<b>Educational</b>	172	3.50	0.72
<b>Social</b>	172	3.91	0.56
<b>Psychological</b>	172	2.77	0.68
<b>Scale overall</b>	172	3.36	0.45

**Table 6.** Table showing whether LLS points changed according to different variables.

	Aesthetic	Relaxation	Physical	Educational	Social	Psychological	Overall Scale
Gender			*				
Having a sibling			*				
Being in the school team							
Out of school activity							
Finding recess sufficient	*						
Monitoring teacher is essential	*		*	*	*		*
Importance given to recess						*	*

\* Shows that there is a significant difference for that variable.

**Table 7.** Comparison of points students received on LLS, according to their gender.

Sub Dimensions	Gender	N	$\bar{x}$	S	t	P
Physical	Female	73	3.03	0.77	−2.37	0.02
	Male	99	3.28	0.73		

**Table 8.** Comparison of points students received on LLS, based on whether they have siblings.

Sub Dimensions	Having Siblings	n	$\bar{x}$	s	Z	p
Physical	With siblings	150	3.12	0.72	−2.43	0.01
	Without siblings	22	3.57	0.91		

**Table 9.** Comparison of points received on LLS, whether students find recess sufficient or not.

Sub Dimensions	Finding Recess Sufficient	N	$\bar{x}$	s	T	p
Aesthetic	Find sufficient	72	3.10	1.07	2.08	0.04
	Find insufficient	100	2.77	1.03		

**Table 10.** Comparison of points received in LLS depending on whether students think a monitoring teacher is essential.

Sub Dimensions	Thinking Monitoring Teacher Is Essential	n	$\bar{x}$	s	z	p
Aesthetic	Essential	146	2.99	1.04	−2.18	0.03
	Not essential	26	2.45	1.05		
Physical	Essential	146	3.24	0.75	−2.64	0.01
	Not essential	26	2.81	0.72		
Educational	Essential	146	3.57	0.68	−3.04	0.00
	Not essential	26	3.10	0.78		
Social	Essential	146	3.95	0.55	−2.04	0.04
	Not essential	26	3.68	0.58		
Scale in general	Essential	146	3.41	0.43	−3.21	0.00
	Not essential	26	3.06	0.48		

**Table 11.** Comparison of points students received in LLS, based on their opinions on considering recess as important.

	Importance of Recess	N	$\bar{x}$	S	$\chi^2$	P	Difference
Psychological	Very important	92	2.75	0.69	10.55	0.01	1–3
	Important	45	2.99	0.65			2–3
	It's not important	35	2.53	0.64			
Scale in general	Very important	92	3.36	0.47	7.97	0.02	2–3
	Important	45	3.45	0.36			1–3
	It's not important	35	3.23	0.49			

**Table 12.** Correlation of points students received in the sub dimensions of the LLS scale.

	Aesthetic	Relaxing	Physical	Educational	Social	Psychological
Aesthetic	1.00					
Relaxing	−0.01	1.00				
Physical	0.37 *	0.27 *	1.00			
Educational	0.07	0.44 *	0.39 *	1.00		
Social	0.10	0.45 *	0.26 *	0.44 *	1.00	
Psychological	0.43 *	0.09	0.26 *	0.18 *	0.20 *	1.00

\* Shows that there is a correlation for that sub-dimensions.

In Table 10, the opinions of students on the necessity of a monitoring teacher are evaluated. Based on these data, analysis of the scores received in the “aesthetic”, “physical”, “educational”, and “social” sub-dimensions, and in the LLS scale in general, reveal that there is a significant difference ( $p < 0.05$ ). The satisfaction levels of the students who stated that a monitoring teacher is essential were found to be higher than the levels of those who said it is not essential.

Examination of the LLS scores in terms of whether they perceive recess to be important, a significant difference can be seen ( $p < 0.05$ ) in the “psychological” sub-dimension, and in the overall scale. Using the results of the post-hoc Tukey test to investigate which groups the differed occurred in, it was observed that those students who find recess to be very important in both the psychological sub-dimension, and in the scale in general, experienced more satisfaction compared to those who believe recess is not important. Similarly, those students who find recess to be important also recorded more satisfaction in both the psychological sub-dimension and in the scale in general, compared to those who believe that recess is not important.

Pursuant to Table 12, a conclusion is reached that there is a positive correlation among some of the scores of the students in the sub-dimensions of the LLS scale. A positive correlation was found between the physical satisfaction levels and aesthetic and relaxation levels of students during recess periods. There is also a positive correlation between the educational satisfaction levels and relaxation and physical satisfaction levels. When their social satisfaction levels are examined, it can also be observed that there is a positive correlation with their relaxation, physical and educational satisfaction levels. Finally, a positive correlation emerged between the psychological satisfaction levels of students and the satisfaction levels in all the sub-dimensions.

#### 4. Discussion

Time is an abstract notion, and is the life measure of all animate and inanimate beings; it cannot be borrowed, accumulated or saved, and ends when it is used [46]. According to Baltaş, time is the only thing given equally to everyone in this world [47]. Researchers discuss three different types of time, namely time in relation to existence, time about sustenance, and free time [25]. This study has the fundamental aim of establishing the effect of “free time” on students, how students use this time, what is needed to control this duration, and the importance of activities during this period. The study was conducted in the basis of the “recess” concept, which is the only period in which primary school students in North Cyprus are afforded free time and data were collected accordingly.

Analyses were conducted to gather suitable data for qualitative and quantitative studies. While the students were asked to provide metaphors related to the notion of “recess” in terms of qualitative data, the LLS was applied to the same students to gather quantitative data.

The qualitative findings of the study are the metaphors of the students related to the concept of “recess”. When those metaphors were examined, it was found that students regarded the concept of “recess” predominantly in terms of “game”, “fun”, “break”, and “necessity”. When these metaphors are categorized as concrete and abstract, the most frequently used concrete metaphors were “friend” for animate and “game” for inanimate things, while the most frequently used abstract mental metaphor was “fun”. This finding corresponds to the statement made by Blatchford and Sumpner in their research: Students in every school regard recess as “time free from restraint, entertaining, relaxing, and suitable for playing games, spending time with friends, and talking about teachers” [48]. Recess being considered a necessity by students is in concordance with the statement made by Genç: “recess is the time for students and to meet the need for nourishment” [49].

When the metaphor explanations were evaluated through content analysis, the main themes of the function of recess emerged. Under the main themes of the function of recess, “fun”, “pleasure”, and “game” were the most prevalent, while “meeting needs”, “break”, and “resting” followed. These were followed by themes such as “freedom”, “right”, “boring”, “unnecessary”, and “cooperation and sharing”.

In support of the findings of the present study, research conducted by Aydın, Bakırcı and Ürey established that, during free time, students who become tired in other lessons find the opportunity to “rest” [50]. Taşdemir and Sargın, proposed in their study that students experienced a sense of freedom during the free time period, and thus their creativity was enhanced [51]. Again, in another study by Asan and Güneş, it was found that students acquired the habit of collaborating with their peers through “cooperation” and “sharing” during their free time [52]. In relation with the fun and pleasure theme of the function of recess, which was the most frequently cited by the students, Lu and Hu reached the conclusion that the individuals who are satisfied with free time become “content” and “pleased” [53].

Some studies have investigated the opinions of teachers, on free time activities and the function of recess periods in addition to the opinions of students reached the conclusion that students want to spend their free time “in a fun and enjoyable way, developing their creativity, socializing, sharing, and meeting their needs with a sense of freedom” [54–58].

In the evaluation of the quantitative findings of the research, it was observed that the highest item point average based on the sub-dimensions of the LLS scale was in the “social” sub-dimension with a value of 3.91, and the lowest item point average was in the “psychological” sub-dimension with a value of 2.77. This finding is significant for establishing the fact that, according to the LLS scores, primary school students largely achieve satisfaction in a social manner during recess. Pellegrini [59] and Blatchford [48], who conducted widely respected studies on the subject of on recess, stated that recess has an important place in developing students’ social skills, such as sharing, acting together, helping each other and developing creativity. In a study that examined the effect of recess on the social, cognitive, and physical development of students, Santistevan reached the conclusion that these three factors were enhanced during recess [3]. In another research that studied the effects of recess time on the social development of students, Becker et al. [60] stated that the free time activities of students and their participation in these activities had positive role in providing students self-control skills that also contribute to reading at early age and mathematical skills in time. In a thesis on children with attention deficit disorder and hyperactivity disorder, Yılmaz investigated another dimension of the topic and reached the conclusion that the children with attention deficit disorder and hyperactivity disorder socialized in a positive way during free time activities [61]. In a study on ADHD students, Ridgway et al. [62] compared the days when children had recess and when they did not. They concluded that the children showed more inappropriate behavior in the days when they did not have recess. This indicated the effect of recess in decreasing inappropriate behavior among

these children. In a similar study, Kua and Faber [63] stated that outdoor activities decreased the attention deficit symptoms of children. In comparison with indoor activities, they concluded that outdoor activities reduce the symptoms of inappropriate behaviors. In addition to this, Holmes et al. studied the effects of recess period on students' attention during indoor activities. They emphasized the positive effect of outdoor activities on the attention of students during indoor activities and stated that the attention of students increased after experiencing outdoor activities [64].

According to the LLS data obtained from the students, the scores received for the "physical" sub-dimension were affected by the gender variable. In fact, Adamcak, Bartik, and Nemeč reached to the conclusion in their study that male students, unlike female students, wanted to have almost 5 h of physical activity on a daily basis [65]. In a study, Torkildsen identified that activities implemented during free time were affected by the "gender" variable, besides age and education [33]. Additionally, Demir and Demir citing studies by other researchers (Culp, 1998; Henderson, 1993), stated that free time activities showed important variations based on "gender" [66]. Furthermore, Moccia, Mota and Esculcas identified that "gender" is influential on the choice of space and activities during free time [67,68]. Şen and Sarıkaya reached the conclusion that in free time activities such as drama and playing chess, there were significant differences as a result of the "gender" variable [69]. The difference in terms of gender can be connected to the fact that boys exhibit greater interest in playing sports or games, while girls often choose to spend more time in the park. Lopes et al. claimed that boys spent more time in physical activities during recess than girls since they engaged in higher intensity activity than girls [70]. Similarly, the research of Verstraete et al. indicated that boys were more active than girls during unstructured recess periods. To eliminate this difference between boys and girls, game equipment could be provided and physical activities could be encouraged. Both boys and girls would have chance to reach the daily activity levels through engaging physical activities [71]. In another study, Sherman and James suggested to provide additional equipment for children to use during recess. Moreover, they stated that both boys and girls should have more opportunities and programs for physical activity and these activities need to include both sexes rather than being single sex activities [72]. Pawlowski et al. also emphasized the gender difference in terms of activities and stated that boys and girls perceived barriers such as weather, conflicts, lack of space, lack of play facilities and use of electronic devices in a different way. For instance, weather is a barrier for all children regardless of gender but it is a barrier particularly by those boys who engaged in outdoor activities. Girls wanted to have more "hanging-out" facilities, whereas boys primarily wanted activity promoting facilities [73].

In the comparison of the scores of the students from the LLS based on the variable of whether they have siblings, again there was a significant difference in the "physical" sub-dimension of the scale. Students without siblings stated that they experienced more satisfaction physically during recess, as opposed to those with siblings. This conclusion can be interpreted as students with siblings choosing more protective places such as their homes when spending time with their friends. Alternatively, since students with siblings have the opportunity to play games in their free time outside school, their physical satisfaction level could already be sufficient, indicating that they may choose to spend the recess periods at school in more relaxing activities. In recent years, as can be seen in the literature, the effect of recess periods on physical activities and on physical satisfaction has received increased focus from researchers [74,75]. However, the findings of this study show that the psychological satisfaction levels of students are low during recess. Therefore, it is quite important that scientific research should be conducted on the subject of psychological satisfaction during recess. In fact, Lucas underlined the necessity for teachers to be more sensitive and attentive towards psychologically sensitive and depressive students during recess periods [76]. Similarly, it was observed in a project implemented in Texas, USA that the social and emotional skills of students increased, and the instances of bullying at school decreased by expanding the number and duration of recess periods [77].

According to another finding of this research, it was observed that the satisfaction scores of the students in the "aesthetic" sub-dimension of the scale were differentiated. For example, the aesthetic

satisfaction of students who find the recess period to be sufficient is higher compared to those who do not find recess period sufficient. Tarun et al., in their study on 16 private schools, emphasized that the aesthetic qualities of the locations in which out-of-school free activities are conducted, are very important [78]. In their studies investigating the problems students face in their free time, Cengiz and Dođtaş stated that difficulties were predominantly experienced in relation to security, aesthetics, and in the use of open, green spaces [79]. Investigating the subject of problems in schoolyards and in non-aesthetic spaces, Tandođan examined the ideal school gardens that students imagined [80]. The conclusions showed that students preferred school gardens with natural elements: water elements such as ornamental pools and swimming pools; game elements such as swings and slides; and areas that are suitable for playing football, basketball, and volleyball.

Recess is a period of time allocated to students during which free activities such as entertainment, resting, meeting needs, and spending happy time occur. The main participants in recess and free time are students. Nevertheless, important duties are bestowed upon teachers during recess and free time in terms of maintaining the school order and for controlling the behaviors of students towards each other. Genç stated that in many countries around the world, there are teachers and teaching assistants on duty during recess periods, and these people encourage students to perform activities by controlling their actions [49]. In North Cyprus, the people who assume the responsibility for ensuring safety during recess periods and direct students in their activities are the teachers on duty, who are assigned by the school administrators. When asked about this, the students participating in this study stated that they perceive the teachers on duty to be essential during recess periods.

In the light of the findings of this study, it could be stated that school buildings and the school environment are significant for children to spend more qualified time during recess. It is necessary for basic education fields to have a sustainable design. Kayihan and Tönük stated that primary schools for education for the students 6–14 age group have great significance and potentials compared to other types of structures, since they are the structures in which sustainable awareness and education are given to young generations [81].

## 5. Conclusions

The conclusions related to the qualitative findings of the study can be summarized as follows: (i) Considering the small number of students who stated that recess is a right, it can be said that their level of consciousness should be increased because recess is an important period for their development. (ii) Even though few students stated that recess creates distress, the reasons for this perception should be researched, and efforts should be made to eliminate the negative feelings. Furthermore, because some students defined recess as freedom, it is thought that they are not sufficiently free in the classroom, and this should therefore be investigated. (iii) Considering the statements of some students who think recess periods are changeable in terms of duration, and the reason for this arises from teachers and school administrators, it can be said that placing recess under the control of a certain authority is a serious problem. Attention should be paid to ensure that students are allowed to enjoy recess periods in an orderly manner, without the arbitrary decisions of teachers and school administrators.

Conclusions related to the quantitative findings are summarized as follows: (i) Psychological satisfaction levels of students during recess are lower compared to other sub-dimensions. Consequently, further research should be conducted to investigate which specific psychological needs are not satisfied and the causes of these problems. (ii) School administrators should take the necessary precautions to ensure that female students achieve the same level of physical satisfaction as male students during recess. (iii) It is evident that school gardens should be designed to enhance the aesthetic satisfaction levels of students during recess. (iv) Based on the fact that students expressed the opinion that it is necessary to have teachers on duty during recess periods, it is essential that teachers are informed appropriately on the topic so that, they will pay more attention during recess periods. (v) When the correlation findings were examined, it was observed that, as the psychological satisfaction levels of students increased during recess, their satisfaction levels in all other dimensions increased in parallel.

Therefore, it should be noted that both teachers and school administrators have the responsibility to increase the psychological satisfaction levels of students. It is possible to increase the satisfaction levels in other dimensions (physical, aesthetic, social, etc.) by increasing the students' psychological satisfaction levels.

In this study, both quantitative and qualitative data were gathered and a comprehensive and extensive research on recess was conducted. In this context, it can be said that it contributes to the literature in terms of the investigation of recess both qualitatively and quantitatively. First, the findings in the literature are significant, since they can give idea to the educators about planning time of the students effectively that are spent outside of the classroom. The vitality of recess is indicated both in the literature and in this study, as it is clear that recess contributes to students' social, emotional and academic development. The findings of this research could be used to improve student's academic, social and emotional development through free time activities. Since the students participated in this study explain recess as metaphorical, it can be claimed that the students emphasized on fun-games and the fulfillment of their needs. In that case, academicians of educational sciences should give priority to these topics when planning the recess process and its duration.

The findings of this study are different from other studies on recess in the literature in the sense that aesthetic satisfaction levels of students participated in this research are lower than other dimensions (relaxation, physical, social, and educational). Regarding socio-economic situation, it can be said that the northern part of Cyprus, having the per capita income of \$13,000 (in 2016), is lower than the countries in Europe. Therefore, the standards of school gardens are considered to be below than the European standards. Another contribution of this study to the literature is that it clarifies the significance of necessary equipment, tools, appliance and materials for the satisfaction of students and the study will also bring their necessity to the agenda.

In the study, the students indicated their wish to be together with their teachers during recess time. The satisfaction levels (aesthetic, physical, educational, social dimension) of students are higher when their teachers are together with the students in recess. As a result of this, teachers need to be trained not only in teaching but also in spending time with children, participating in activities that took place outside of the classroom and planning free time activities. Further studies could be made regarding the observation and description of the behaviors of teachers during recess time. Therefore, any problems emerged from the behaviors of teachers could be determined, solved and the teachers could increase the quality of recess time in favor of the students.

The limitations of this study in terms of recess can be stated as follows: only very few of the students participated in this research considered recess as their own time, their right and freedom. However, it is important for students to feel themselves comfortable and free in recess time. In this research conducted in Cyprus, the idea of recess needs to be developed based on freedom and rights. Students need to be encouraged to spend time with their friends on the activities they wanted to eliminate this limitation and obstacle.

To increase the psychological satisfaction levels of students during recess, various practices need to be tried. For instance, education on leisure time could be given to students to make them aware of the ways to use their free time effectively. Various activities such as reading, spending time in nature, and playing could be provided for students to give pleasure to them. Students could be supported not to have conflicts in peer relationships and also their problem solving skills could be improved if they engaged in such conflicts. Moreover, activities to increase the interaction and communication between teachers and students could take place outside the classroom. The teacher model that gives cognitive education and teaches lessons in the classroom needs to be replaced by the model that acts like a friend and engages in emotional and social sharing in recess time. Finally, it is thought that the school garden's natural environment, design, colors, and equipment should be attractive for students to provide them with psychological satisfaction during recess.



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