IBAD journal
ULUSLARARASI BİLİMSEL ARAŞTIRMALAR DERGİSİ
JOURNAL OF THE INTERNATIONAL SCIENTIFIC RESEARCHES

Cilt-Volume: 2 | Sayı-Issue: 2 | Sayfa-Page: 154-164 | Güz-Fall | Yıl-Year: 2017

IBAD, 2017; 2(2): 154-164 Geliş tarihi/First received: 08.03.2017 Kabul tarihi/Accepted: 28.04.2017

LİSE BAHÇELERİNİN GENÇLER TARAFINDAN ALGISAL AÇIDAN DEĞERLENDİRİLMESİ[1]

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Özet

Genç gelişiminin çok boyutlu olması (biyolojik, psikolojik, kişisel ve toplumsal) gençliğin sınırlarının net bir şekilde belirlenmesini engellemektedir. Gençlik için yaş sınırı, genelde 12-21 yaş arası kabul edilmektedir. Bu çalışmada lise gençliği ele alınarak, lise öğrencilerinin mekânın özelliklerine göre orayı algıla ve beğenme ilişkisi ortaya konmuştur. Lise gençliği üzerinde çalışma yapmak ve onların sorunlarını, ihtiyaçlarını mekânsal algılarını belirlemek, için, bulunulan toplumun hem mevcut durumunun hem de geleceğinin daha iyi anlaşılması önem taşımaktadır. Lise gençliği genel olarak 13-18 yas grubunu oluşturan ve kendine özgü kültürü olan bir toplumsal kesim olarak tanımlanır. Zamanlarının çoğunu okulda geçirmek zorunda olan lise gençleri, okul ve bahçesiyle yakın ilişki içerisinde oldukları için okul bahçelerinin onların gelişimi üzerinde büyük bir etkisi vardır. Bu nedenle çalışmada önce Trabzon kentindeki farklı mekânsal özelliklere sahip iki lisenin bahçesi puantaj tablosuna göre değerlendirilerek sınıflandırılmıştır. Daha sonra gençlere sıfat çiftleri verilerek okul bahçeleri 5 li likert skalasıyla algısal açıdan değerlendirilmiştir. Bu sayede gençlerin gözünde lise bahçeleri tanımlanmıştır. Sonuçta; mekânsal özellikler iyileştikçe lise bahçeleri olumlu algısal özellikler ile tanımlanmış, bu da gençlerin o mekâna karşı beğeni düzeyini arttırmıştır.

Anahtar Kelimeler: Lise bahçeleri, Gençler, Çevresel özellikler, Algısal özellikler

PERCEPTUAL ASSESSMENT OF HIGH SCHOOL GARDENS BY YOUTH

Abstract

The multidimensional nature of youth development (biological, psychological, personal and social) prevents the clear definition of the boundaries of youth. The age limit for youth is generally considered to be between 12 and 21 years of age. In the present study, the relationship between perception and liking of high school students for a space based on the characteristics of the space. To conduct a study on high school youth and to determine their problems, needs and spatial perceptions, it is significant to comprehend both the current situation and the future of the related society. High school youth is generally defined as a social segment which includes the 13-18 age group and has its own culture. School gardens have a great impact on their development, since high school students, who often spend most of their time at school, are in close contact with the school and the school garden. Thus, in the study, initially two high school gardens with different spatial features in Trabzon province in Turkey were evaluated and classified based on the scorecard. Afterwards, adjective pairs were provided to the students and the school gardens were assessed perceptually using a 5-point Likert scale. Thus, high school gardens were defined based on the views of young individuals. As a result, it was observed that as spatial features improved, high school gardens were identified with more positive perceptual characteristics, which in turn increased the level of appreciation of young individuals for that space

Keywords: High school gardens, Youth, environmental features, Perceptual features.

Özgün Araştırma/Original Article

[1] Bu çalışma 2. Uluslararası Bilimsel Araştırmalar Kongresi – İnsan ve Toplum Bilimleri (IBAD-2017) sempozyumunda sözlü bildiri olarak sunulmuştur.

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ISSN: 2536-4642

Doi Number :http://dx.doi.org/10.21733/ibad.2101

INTRODUCTION

Youth is the period of development, spiritual maturation and preparation for life between the childhood and adulthood. According to G. Stanley Hall (1904), who made the first scientific work on youth psychology as it is conceived today and wrote the book 'Adolescence,' youth is a period of rebirth. Hall (1904) considers the youth period as a period of civilization in which the human baby becomes a member of society. The French psychoanalyst Françoise Dolto defines the youth as second birth and states that the individual is fragile during this period (Liaudet, 1999). According to Humphrey (2002), the term refers to people who are young and between the ages of 13 and 18. On the educational level, youth refers to individuals at school age.

Anna Freud (1958) defines youth as "the period of storm and stress," while considering the youth as the period of contradictions. According to Peter Blos (1962), youth is the "second separation-individualization" period. According to Jacobson (1964), this is a "mourning period". Sullivan, the pioneer of interpersonal relations theory, likens the youth to hell (Jemin, 1992).

In the cognitive-developmental theory (Piaget, 1896-1990), youth was included in the "Formal Operational Stage". David Elkind (1967, 1999) draws attention to the self-centeredness of cognitive development, in which young people are molded differently from children and adults by their ability of abstract thinking. Young age is the period of anxiety, anger, and conflicts. Young people are selfish, indecisive, contradictory. Rebellious behavior are observed. In this age, enthusiasm, passion, and awakening sexual desires are dominant in the behavior of the young individuals (Jemin, 1992).

However, this period is not just an era of negative events. Recently, authors have argued that youth is not specifically more stressful and problematic than other periods of life (Offer et al., 1990). Strong bonds of friendship are established, steps are made towards innovation and the future in youth. Young individuals are idealist. In this age, the emotions of seeking their identity, endeavoring to prove themselves, and transferring their passions into action of the youth are intense. They value their honor and achievements very much. They are generous and kind. They trust and attach others quickly. The feeling of private life develops. Thus, they have different demands and needs from children or adults (Düzenli et al. 2012; Düzenli et al 2016; Düzenli et al. 2016; Karman et al., 2006).

There is a need for spaces for the youth that could respond to the abovementioned different needs and requirements and where they could prove themselves to others. As a result, social development level of young individuals improves and they are transformed into adults that could form healthy relationships with the society. Thus, social development of the youth depends on how quickly the community could respond to basic social needs of the young individual. Young individuals desire to be respected by their peers, to know that they are part of the community they live in, and to socialize and to spend time in suitable spaces (Lapsley, 1993; Naker, 2009;). The characteristics of these spaces indirectly affect the personal development of young individuals due to the types of activities the spaces allow. Because, there are certain activities that could be performed in that space, or certain activities that could not be performed due to facilities such as the opportunity to express themselves or not. Thus, when designing spaces for the youth, it is necessary to design those suitable for the active and energetic structure of the youth and their social needs, and spaces that allow an active lifestyle and socialization should be designed (Düzenli et al. 2017).

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The present study scrutinized the high school youth. Since the space where most of the individuals that attend high school spend time is school gardens, the spatial characteristics of the school gardens, their perception and liking were addressed.

School Gardens

When it is considered that young individuals spend most of their time at school (especially in secondary education), it could be argued that school gardens should be designed to suit the needs of young individuals. Students spend 25% of their school life in school gardens. Thus, school gardens have significant effects on learning, games, personal development, health and environmental awareness. School gardens are spaces where the interaction between students and the environment, the conducted activities, and culture and tradition takes place. Therefore, school gardens are;

- Social learning and development areas,
- A reflection of the outside world,
- A separate world with its own culture and traditions,
- A playground,
- A part of the school and society,
- A reflection of the closed classroom system in open space (Casey, 2003).

The aim of the present study was to determine how students perceived the school gardens. As far as the schools respond to the needs of students, student satisfaction increases. As a result, the school is perceived positively in terms of space, thus, the level of student's appreciation for that space also increases. Thus, the student would stay away from places that might be harmful for the student outside the school (game arcades, internet cafes, etc.).

School gardens must have a minimum space of 15 m^2 per student. The spaces included in the school garden are also as important as its size. A huge empty garden would be inadequate to meet the needs of young individuals. The components that should be included in an educational facility are identified in the Ministry of National Education Minimum Standards of Educational Buildings as outdoor sports area, social area, ceremonial area, green area, parking lot and security booth (Ministry of National Education, 2015). Thus, the presence of such spaces for students with negative behavior would contribute to the prevention of negative behavior (Dwyer et al., 1998). Well-designed school gardens are spaces that include a variety of activities adequate for learning and socializing.

MATERIAL AND METHOD

Selection and Definition of the Study Field

In the present study, two high school gardens with different spatial features in the city of Trabzon were addressed. These schools were chosen as study areas because their gardens have different environmental possibilities. These were Trabzon Science High School (Figure 1-2) and Tevfik Serdar Anatolian High School (Figure 3-4)

Trabzon Science High School: The school is located in Trabzon Kavak Square, has 450 students, provides formal education, accepts students with specific exams and has the highest score (in Trabzon-Ortahisar) in its status. The approximate open school area is 11.200 m^2.

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Figure 1. Trabzon Science High School – Plan view

Figure 2. Trabzon Science High School – The view of the garden from the main school entrance

Tevfik Serdar Anatolian High School: The school is located in Erdoğdu Neighborhood in Trabzon with a total area of 2900 m^2, 783 students and provides formal education.

Figure 3. Tevfik Serdar Anatolian High School – Plan view

Figure 4. Tevfik Serdar Anatolian High School – The view of the garden from the main school entrance.

Method

The study consists of two stages. In the first stage scoring method was applied for evaluation of the school gardens. In the second stage survey was applied for determine the perceptions of the students about the school gardens.

1st Stage

In the first stage, a landscape evaluation that revealed the current situation in the two high school gardens was conducted. In-situ observations and examinations were conducted in the study field and these fields were photographed (Figure 5, Figure 6). In this stage, scoring method was applied in the two school gardens. Twenty-one criteria were used in the evaluation of outdoor spaces in school gardens. School gardens were examined based on

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location, comfort, security, equipment, activity areas, vegetable elements, and water element. In the score card, the scoring was conducted using the following method: not available: 0 points, present / negative: 1 point, present / partially positive: 2 points, present / positive: 3 points. The scores reflected current status of the landscape ineach school garden. Furthermore, the maximum score that could be obtained for the 10 landscape criteria was determined as 63 (21x3 = 63).

Figure 5. Facilities at Trabzon High School garden

Figure 6. Facilities at Tevfik Serdar Anatolian High School

2nd Stage – Survey Study

The garden is considered as a failure when it could not meet the needs of the users, i.e. the students, and cannot provide activities that are adequate for the students and could not be defined as positive with a perceptive perspective. Thus, the perceptions of the students about the school gardens that have different spatial scores were investigated in the second stage. A questionnaire that included adjective pairs was applied to a total of 130 students, 65 in each school. Initially, it was questioned in the questionnaire whether the students liked the school gardens and then, the article pairs (active-monotonous, calming-not calming, peaceful-not peaceful, uplifting-frustrating, natural- artificial, spacious-not spacious, colorful-dull, legible-illegible, restful-not restful, broad-narrow) were presented to evaluate the gardens on a 5-

ISSN: 2536-4642

point Likert attitude scale. With this method, it would be possible to evaluate the perceptions of students for the school gardens. Based on the abovementioned scale, responses to different adjectives are interpreted in a 1 to 5 scale where 1 was the most positive and 5 was the most negative.

FINDINGS AND DISCUSSION

1st Stage: Findings on the Scoring Method

The percentages obtained from the results of the scoring method that was used for the evaluation of high school gardens are presented in Table 1. The gardens were assessed by the researchers as 0-30% = unsuccessful, 30-45% = insufficient, 45-60% = partially successful, 60-85% = successful, and 85-100% = very successful.

Based on the scoring chart, Trabzon Science High School garden had the highest percentage (74,6%) based on all criteria (location, comfort, security, equipment, vegetative elements, water element) and Tevfik Serdar Anatolian High School Garden had a low percentage (25,3%). Thus, Trabzon Science High School garden was successful and Tevfik Serdar Anatolian High School garden was considered as unsuccessful. Therefore, the students were expected to develop positive perceptual values for Trabzon Science High School garden, which had a successful landscape value.

Table 1. The score card used for the assessment of high school gardens

CRITERIA	**Trabzon Science High School**	**Tevfik Serdar Anatolian High School**
Location		
Does it have a view?	3	0
Is the size of the garden adequate?	3	1
Is the garden visible from the entrance?	3	1
Comfort		
Is the garden maintained?	2	0
Are the equipment maintained?	2	1
Are the equipment satisfactory?	2	1
Security		
Is there an entrance unit?	2	2
Is there illumination?	2	2
Are there enclosed areas in the garden?	3	0
Equipment		
Are there signs?	1	0
Are there statues?	0	0
Are there sitting furniture?	2	1
Are there canopy elements?	2	0
Activity Areas		
Are there playfields?	2	1
Are there outdoor sitting areas?	3	1
Are there semi-open sitting areas?	3	1
Are there walking paths?	3	0
Plant Material		
Is there plant diversity?	2	1
Were adequate plant species used?	2	1
Were plants with color and fragrance properties selected?	2	1
Were toxic plants avoided?	2	1
Water Element		
Are there water elements such as pools, etc.?	1	0
Was flowing water elements used (fountain, etc.)?	0	0
Total (100% achievement: 63 points)	**47**	**16**
Success rate	**%74.6**	**%25.3**

Not present: O point, present/negative: 1 point, present/partially positive: 2 points, present/positive: 3 points

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2nd Stage: Survey Findings

Demographics

A total of 130 students, 65 in each school, participated in the survey. Gender distribution of the surveyed students is presented in Figure 7.

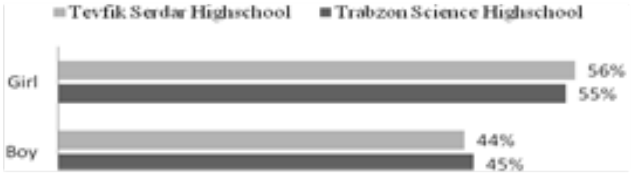

Figure 7. Students' gender distribution

Findings on the Perceptions about the School Garden

As a result of the assessments, the arithmetic mean of the values the adjective pairs received for each school garden was calculated and the correlations between the variables related to the perceptual definitions of school gardens using different landscape criteria were analyzed with the independent T-test.

Independent T-test results demonstrated that there was a difference between the values assigned to adjective pairs that defined each school garden and between the overall sum values assigned to the two school gardens. The results obtained from the independent T-test are pesented in Table 2. Based on the adjective pair scores, perceptions of the students about the school gardens differed and this difference was significant.

Trabzon Science High School garden with the highest landscape criteria score, received the highest scores in the perceptual descriptions of the students as well. The highest scores in defining the school garden were received by the following adjectives: spacious (4.62), active (4.57), and natural (4.37).

Table 2. Independent T- test data

	F	t	df	Sig. (2-tailed)
Active	10,009	22,882	128	,000
Calming	8,796	13,941	128	,000
Peaceful	12,739	12,789	128	,000
Uplifting	12,063	14,812	128	,000
Natural	4,174	18,323	128	,000
Spacious	4,508	25,535	128	,000
Colorful	10,360	10,008	128	,000
Legible	,982	7,461	128	,000
Restful	4,016	6,374	128	,000
Broad	2,156	16,982	128	,000

Tevfik Serdar Anatolian High School garden, which received the lowest landscaping criterion score, received the lowest values in perceptual descriptions of the students as well. The lowest scores in defining the school garden were received by the following adjectives: natural (1,54) and active (1,62). Values for all adjectives are presented in Figure 8. As a result, it was determined that the school gardens should be active, uplifting, calming, peaceful, natural,

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spacious, colorful, legible and broad so that the students could benefit from their use psychosocially and they could be useful spaces suitable for the needs of the students. However, Tevfik Serdar Anatolian High School garden was inadequate based on spatial criteria, it was not perceived as legible, natural, or peaceful, but perceived with negative perceptual criteria such as monotonous and artificial.

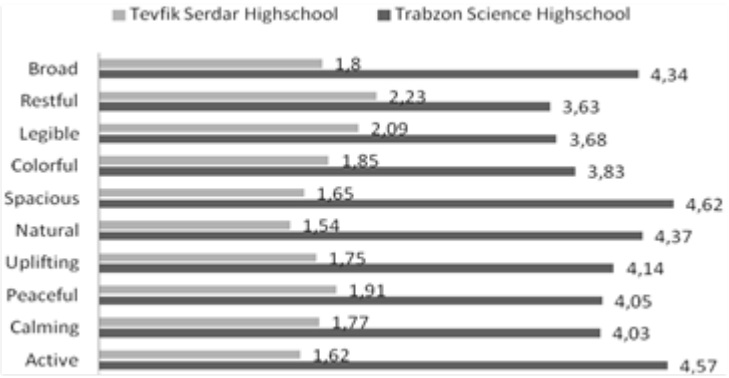

Figure 8. Distribution of the responses given for adjective pairs

The Correlation between the Level of Appreciation and Perceptual Assessments about School Gardens

In the final stage, the correlation between the level of appreciation of students about the school gardens and their perceptual assessments was analyzed by One way ANOVA test ($P < 0.01$; $N = 130$).

One way ANOVA results demonstrated that there was a significant correlation between the difference in the level of appreciation of students about the school gardens and the difference in the values of the adjective pairs that defined the gardens. The results obtained in the one-way ANOVA analysis are presented in Table 3. Based on the level of appreciation of the gardens, the adjectives that defined the gardens differentiated and the difference was significant. In other words, the Trabzon Science High School garden that the students had positive perceptions about and had high spatial characteristics scored high appreciation points (3,78) as well, while Tevfik Serdar Anatolian High School garden that the students had negative perceptions about and had low spatial characteristics scored low appreciation points (2,12). This difference was statistically significant as well.

RESULTS and RECOMMENDATIONS

According to the study conducted by Csikszentmihalyi and Wong (1991) on young individuals, there was a consistent relationship between the happiness of young individuals and the activities they participated in. Happy young individuals are more social and have a better relationship with other individuals. How young individuals perceive the environment is significant. While happy young individuals perform activities willingly, those who are unhappy or less happy perceive the same activity as compulsory. If the school environment is designed in a way where young individuals could have a good time with their peers for instructional purposes, the education process could be fun and more motivating (Strack et al., 1991). Because, the environment where young individuals join new and social activities is mostly the school environment. In other words, the physical activities performed in the school environment have a great impact on subjective well-being (happiness).

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Table 3. One way ANOVA analysis data

		Sum of Squares	df	Mean Square	F	Sig.
High School	Between Groups	11,820	4	2,955	17,862	,000
	Within Groups	20,680	125	,165		
	Total	32,500	129			
Active	Between Groups	162,220	4	40,555	26,587	,000
	Within Groups	190,673	125	1,525		
	Total	352,892	129			
Calming	Between Groups	146,687	4	36,672	35,531	,000
	Within Groups	129,013	125	1,032		
	Total	275,700	129			
Peaceful	Between Groups	148,659	4	37,165	39,955	,000
	Within Groups	116,271	125	,930		
	Total	264,931	129			
Uplifting	Between Groups	154,129	4	38,532	34,778	,000
	Within Groups	138,494	125	1,108		
	Total	292,623	129			
Natural	Between Groups	185,939	4	46,485	33,436	,000
	Within Groups	173,784	125	1,390		
	Total	359,723	129			
Spacious	Between Groups	164,226	4	41,057	28,743	,000
	Within Groups	178,551	125	1,428		
	Total	342,777	129			
Colorful	Between Groups	147,868	4	36,967	32,148	,000
	Within Groups	143,740	125	1,150		
	Total	291,608	129			
Legible	Between Groups	139,248	4	34,812	33,468	,000
	Within Groups	130,021	125	1,040		
	Total	269,269	129			
Restful	Between Groups	135,155	4	33,789	32,685	,000
	Within Groups	129,222	125	1,034		
	Total	264,377	129			
Broad	Between Groups	170,160	4	42,540	40,218	,000
	Within Groups	132,217	125	1,058		
	Total	302,377	129			

In other words, school outdoors can be designed not only in areas where leisure time is to be appreciated but also in education. The student will be able to make / choose the activity he / she has done because of the opportunity to increase the outdoor opportunities offered and to choose the student. But it is important but insufficient to increase the outdoor use rate because the education system is indoor based.

Fordyce (1983); put forward strategies like to develop an ability to be an outward-looking individual, to engage in more social activities, to actively spend life, to think optimistically by reducing negative thoughts, and to deal with new activities.

Where young people are involved in new activities and social activities are often the school environment. So physical activity in school settings is a major influence on subjective well-being (happiness). It is possible to subtract this result from here. School environments that lead to different physical activities lead to happiness. Thus, designing students' activities in

ISSN: 2536-4642

open spaces in school environments positively affects the personality development that they perform because they prefer to do so because of the necessity of activity (not because there is no other alternative), but because they like to do it.

As a result, school gardens that contain adequate equipment and spatial features that guide young individuals to various physical activities increase their happiness, and positive perceptions about the school. Thus, they would be more eager to conduct these activities. Also the school gardens become beneficial spaces for young individuals. The results of the present study also support the above premise: The school garden with higher spatial characteristics was perceived as positive (active, natural, spacious) by the students, and its appreciation level was high, while the school garden with low spatial characteristics was perceived as negative (monotonous, artificial) by the young individuals and its appreciation level was also low. Therefore, spacious school gardens with adequate activity areas and suitable equipment-plant-water elements and that are perceived as natural, peaceful, legible, uplifting, active, etc. should be designed. The authorities must take these factors into account to reorganize or extend the gardens, and consider school gardens as part of the education. Thus, young individuals would participate in education processes that are more peaceful, fun, far away from stress, and the achievement levels of the young individuals would improve accordingly.

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