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EVALUATION OF STUDENT PERCEPTION ON LANDSCAPE PLANNING AND DESIGN OF UNIVERSITY CAMPUSES AROUND THE CASE OF AĞDACI CAMPUS, BARTIN UNIVERSITY, TURKEY

Melih Öztürk[1], Ercan Gökyer[1*], Ömer Lütfü Çorbacı[2]

[1]: Bartın University, Faculty of Forestry, Department of Landscape Architecture, Bartın.
[2]: Karabük University, Faculty of Forestry, Department of Landscape Architecture, Karabük.
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ABSTRACT

Physical organization and recreational capacities of the university campuses influence the wellbeing of the students. In this study, the perception of the Landscape Architecture students of Bartın University about the physical necessities of the overall university campuses and their content on the physical capacities of their own Ağdacı Campus were analyzed by questionnaire. The questionnaire particularly involved the replies of the students indicating the level of their affirmation on the "necessities and capacities" of the overall and existing university campuses respectively. According to the results of the questionnaire, in general, the students highly and completely affirmed the physical necessities of the overall university campuses which were referred in the questionnaire. On the other hand, they replied with the low affirmation for the physical capacities of their existing campus. Consequently, the physical construction of the university campuses based on the landscape planning and design criteria that also consider student perceptions will lead to sustainable campuses.

Keywords: University campus, Bartın University, Questionnaire, Physical necessities and capacities, Landscape planning and design.

ÜNİVERSİTE YERLEŞKELERİNDE PEYZAJ PLANLAMA VE DÜZENLEMELERİNE YÖNELİK ÖĞRENCİ ALGISININ BARTIN ÜNİVERSİTESİ AĞDACI KAMPÜSÜ ÖRNEĞİNDE DEĞERLENDİRİLMESİ

ÖZET

Üniversite yerleşkelerinin fiziksel organizasyonu ve rekreasyon imkanları öğrencilerin huzuruna tesir etmektedir. Bu çalışmada Bartın Üniversitesi Peyzaj Mimarlığı Bölümü öğrencilerinin üniversite kampüslerinin genel fiziksel gereklilikleri konusundaki algısı ve eğitim gördükleri Ağdacı Kampüsü'nün sahip olduğu fiziksel kapasiteler hususundaki memnuniyeti anketle sorgulanmıştır. Anket bilhassa öğrencilerin, sırasıyla genel olarak üniversite kampüsleri ve mevcut kampüsleri hususundaki verdikleri tasdikin derecesini ifade eden geri dönüşleri kapsamaktadır. Anket sonuçlarına göre öğrenciler, genel olarak, kendilerine ankette bahsedilen üniversitelerin fiziksel gereksinimleri hakkında çok ve

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tamamen katıldıklarını ifade ettiler. Öte yandan, kendilerine bahsedilen mevcut kampüslerinin fiziksel kapasiteleri ile ilgili olarak ise, az katıldıklarını ortaya koydular. Netice olarak, peyzaj planlama ve tasarım kriterlerini esas alan ve aynı zamanda öğrenci algısını da önemseyen bir yaklaşımla üniversite kampüslerinin fiziksel inşası, sürdürülebilir kampüslere öncülük edecektir.

Anahtar Kelimeler*: Üniversite kampüsü, Bartın Üniversitesi, Anket, Fiziksel gereklilikler ve kapasiteler, Peyzaj planlama ve tasarım.*

1. INTRODUCTION

Due to the growing population in Turkey, the university education requirements of citizens increased. In order to compensate these needs, the government tended to establish new universities spreading them to whole country by introducing at least one university for each province (Altınsoy, 2011). Moreover, at the metropolitan provinces, multiple universities were installed which were followed by the private universities where possible. Introducing such number of universities required the construction of campuses that would serve physical and mental wellbeing of users including students, academic and administrative staff, and labors.

The physical organization and recreational opportunities of the university campuses play a particular role on the wellbeing of the students (McFarland et al., 2008; Lau and Yang, 2009; Hipp et al., 2015). Gül and Küçük (2001) evaluated the university campus within the semi-private open green spaces. Urban green spaces contribute positive impacts on the wellbeing of their users (Carrus et al., 2015). Many researches (e.g. Korkut and Çilek, 2005; Turgut et al., 2009; Ertekin and Çorbacı, 2010; Yılmaz, 2015) have been published on the landscape planning and design strategies for university campuses of Turkey. The university student perceptions about the campuses are primarily and significantly valuable since they are the major party involved inside (Dönmez et al., 2015). Their opinions and contributions not only support the physical development of the campuses but also stimulate the conceptual and intellectual improvement in order to establish sophisticated campuses.

In this study, Landscape Architecture students of Bartın University were subjected to questionnaire in order to understand their attitudes towards the overall university campuses and their own Ağdacı Campus. The questionnaire especially focused on the physical necessities of the overall university campuses and their content on the physical capacities of their own campus. The analysis of the questionnaire was particularly based on the basic statistical test. The Ağdacı campus of Bartın University (Figure 1) which was previously within the Zonguldak Karaelmas University (Karakaş, 1999) is about 4.5 km away from the Bartın city center and cover approximately 1.9 ha (Topay et al., 2003).

2. MATERIALS AND METHODS

After having been solely distinct, separated from the Zonguldak Karaelmas University, Bartın University has developed physically, academically and administratively (Anonymous, 2015). Furthermore, the number of the students, academicians and administrative staff has multiplied. Therefore, participants utilizing the physical potentials supplied by the Bartın University have increased. On the other hand, newly establishing Kutlubey-Yazıcılar Campus of the Bartın University has lessened this physical burden on the previous campus to some extent.

In this study, the Landscape Architecture students of Bartın University, Faculty of

Forestry, were initially categorized based on their demographic structure (gender and age groups), class, parent business and salary, and hometown. Based on their ages, the students were grouped under 18-20, 21-23, 24-26, 27-29 and, 30 and older. They were requested to reply the general and specific statements about the university campus planning and design. Their replies which were tabulated according to the Likert Scale (Likert, 1932) consisted of "non-affirming-1", "low-affirming-2", "moderate -affirming-3", "highly-affirming-4" and "completely-affirming-5". Inquiry part of the prepared according to the Lickert Scale is represented in Table 1.

The general statements implied the physical necessities in order to attain landscape planning and design objectives about the overall university campuses. The 17 statements involved the necessities of "adequate number of parking lots, recreation areas, sport fields, and outdoor equipment", "efficient width of vehicle and pedestrian ways", "sufficient distance between the physical units", "existence of amphitheaters, indoor sport halls, stadiums for ceremony, concert and sport events, and hobby fields", "application of planting design, aquatic elements, bicycle trails, night lighting equipment, and grounds for various sport facilities" and "variation of floor pavements harmonious with the spaces".

On the other hand, the specific statements comprised the satisfaction on the present physical capacities of Ağdacı Campus of Bartın University in order to sustain landscape planning and design objectives. The 14 statements consisted of the contents about "adequate number of parking lots, recreation areas, sport fields, and outdoor equipment", "efficient width of vehicle and pedestrian ways", "sufficient distance between the physical units", "existence of hobby fields and indoor sport halls", "application of planting design, bicycle trails, night lighting equipment, and grounds for various sport facilities" and "variation of floor pavements harmonious with the spaces".

Using the SPSS 23.0 software (SPSS Inc., Chicago, IL), the basic statistical analysis involving the "mean and standard deviation" (Townend, 2001) were conducted based on the replies of the students for the physical necessities of the overall university campuses and content on their own university campus were analyzed.

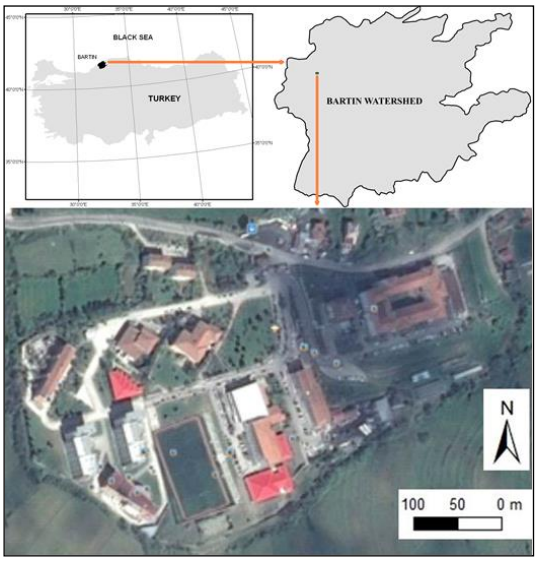

Figure 1. Location of the Ağdacı Campus of Bartın University within the Bartın watershed and Turkey.

Table 1. Inquiry part of the questionnaire based on Likert Scale (Likert, 1932).

Necessities for overall university campuses Content for existing university campus	Non affirm.	Low affirm.	Mod. affirm.	High. affirm.	Com. affirm.
1. Adequate number of parking lots					
2. Efficient width of vehicle ways					
3. Efficient width of pedestrian ways					
4. Sufficient distance between units					
5. Adequate number of recreation areas					
6. Existence of amphitheaters					
7. Adequate number of sport fields					
8. Existence of indoor sport halls					
9. Existence of stadiums for multipurpose					
10. Application of planting design					
11. Application of aquatic elements					
12. Application of bicycle trails					
13. Adequate number of outdoor equipment					
14. Application of night lighting equipment					
15. Floor pavements harmonious with space					
16. Existence of hobby fields					
17. Application of grounds for sport facilities					

Bold lines indicate common phrases about both necessities for overall campuses and content for existing campus.

3. RESULTS AND DISCUSSION

The distribution of mean, standard deviation and sample size of the students based on their gender, classes and age groups is given in the Tables 2 and 3 respectively. The former table was formed according to the replies of the students in order to determine physical necessities of the overall university campuses whereas the latter was generated according to the replies of the students in order to indicate their content about the physical capacities of their own university campus.

Out of the total 141 students, the number of the males and females were 55 and 86 respectively. The number of the students at each class from 1 to 4, were 27, 29, 30 and 55 respectively. About 21.3% of the students belonged to the age group of 18-20, 62.4% drop into the age group of 21-23, and 16.3% of the students were 24 years old and higher. According to the tables, it was realized that particularly the younger ones of the final year students were satisfied with the existing physical capacities of their own campus compatible with their expectation from an overall campus.

Table 2. Mean and standard deviation of the student replies for the necessities of an overall university campus and sample size of these students based on their gender, classes and age groups.

Gender	Class	Age	$\bar{X}$	SD	N
Male	1	18-20	4.54	0.52	11
	2	18-20	4.26	0.62	2
		21-23	4.38	0.47	14
		24+	4.11	0.16	2
	3	21-23	4.55	0.47	8
		24+	4.00	-	1
	4	18-20	4.41	-	1
		21-23	4.60	0.37	8
		24+	4.63	0.49	8
Female	1	18-20	4.03	0.64	12
		21-23	5.00	0.00	4
	2	18-20	3.17	-	1
		21-23	4.55	0.34	10
	3	18-20	4.33	0.84	3
		21-23	4.86	0.16	16
		24+	4.00	0.83	2
	4	21-23	4.52	0.40	28
		24+	4.45	0.36	10

The students replied with “highly-affirming-4” and “completely-affirming-5” for the physical necessities in order to reach landscape planning and design objectives about the overall university campuses. This situation was valid for the final year students in particular.

However, with few exceptions almost regardless of the gender, class and age groups, the physical capacities of the Bartın University, Ağdacı Campus could not meet the demands of the Landscape Architecture students. Therefore, they replied with the "low-affirming" for these physical capacities of their own university campus. Nevertheless, the female students were relatively more positive for the physical capacities of their own university campus.

Table 3. Mean and standard deviation of the student replies for content on their own university campus and sample size of these students based on their gender, classes and age groups.

Gender	Class	Age	$\bar{X}$	SD	N
Male	1	18-20	1.87	0.49	11
	2	18-20	3.10	0.95	2
		21-23	2.07	0.71	14
		24+	2.21	0.60	2
	3	21-23	1.73	0.70	8
		24+	3.28	-	1
	4	18-20	4.50	-	1
		21-23	1.79	0.40	8
		24+	2.24	0.46	8
Female	1	18-20	2.13	0.49	23
		21-23	1.21	0.00	4
	2	18-20	2.97	0.71	3
		21-23	1.94	0.71	24
		24+	2.21	0.60	2
	3	18-20	2.02	0.75	3
		21-23	1.63	0.56	24
		24+	2.69	0.91	3
	4	18-20	4.50	-	1
		21-23	1.84	0.43	36
		24+	2.05	0.62	18

The results of this study also imply that; rather than the gender, and the class and age group were relatively more definitive on the perception of both the physical necessities for the overall campuses and on the content for the physical capacities of the existing campus. This situation is based particularly on the improvement of the Landscape Architecture students' environmenttal perception throughout their associated education. Hence they acquire the academic knowledge and ability in order to plan and design overall university campuses together with their existing and newly establishing campuses (Açıksöz et al., 2014). In a similar study, Azemati et al. (2014) suggested to consider the student opinions on the usage of the multi-functional open spaces for the accessibility of university campuses.

In fact, from the perspective of the outdoor and open space usage at the university campus, Abu-Ghazzeh (1999) and Tiyarattanachai (2016) emphasized the significant of the environmental behavior and perception of all the participants including the students, faculty and administrative staff. Besides, Aydın and Ter (2008) particularly indicated the importance of user characteristics on their outdoor space preferences for the university campus. Consequently, they determined behaveoral, functional and visual quality of the open space area that influence those user characteristics.

4. CONCLUSION

The global results of the statistical analysis generally revealed that the Landscape Architecture students developed their perception about the overall university campuses and their own campus. However, the older students compared to the younger ones were relatively more deliberate with their replies of highly or completely affirming the physical necessities for the overall university campuses. Furthermore, particularly the older students were more consistent with their replies of low affirming the content on the physical capacities for their own university campus. Consequently, the factors of class and age groups of the students were particularly effective on their decision about their own university campus whereas just the students' age group factor was influential on their opinion about both the overall university campuses and their own university campus.

The displeasure and discontent of the students about their own Ağdacı

Campus of the Bartın University could relatively be due to the reason that this campus had not initially been planned and designed as the university campus. Besides, the location of the physical structures including the buildings had not completely been compatible with the topography. Moreover, the usage of the open spaces had not been effective and functional. The outcomes from these results should be evaluated and considered in terms of foundation for the landscape planning and design objectives of the new university campuses. Therefore, these consequences are ready to be used as the determinant particularly for the recently establishing Kutlubey-Yazıcılar Campus of the Bartın University. Eventually, physical construction of the university campuses dependent upon the landscape planning and design criteria around the concept of student opinions and decisions will allow sustainable campuses.

REFERENCES

1. Abu-Ghazzeh, T.M. 1999. Communicating behavioral research to campus design factors affecting the perception and use of outdoor spaces at the University of Jordan. Environment and Behavior. 31(6): 764-804.

2. Açıksöz, S., Cengiz, B., Bekci, B., Cengiz, C., Gökçe, G.C. 2014. Üniversite yerleşkelerinde açık ve yeşil alan sisteminin planlanması ve yönetimi: Bartın Üniversitesi Kutlubey-Yazıcılar Yerleşkesi (The planning and management of green open space system in university campuses: Kutlubey-Yazıcılar Campus of Bartın University). Kastamonu Üniversitesi, Orman Fakültesi Dergisi, 14(2):222-236.

3. Altınsoy, S. 2011. Yeni devlet üniversitelerinin gelişimi: Sorunlar ve politika önerileri (Problems of Newly-Founded Universities and Solution Offers). Yükseköğretim ve Bilim Dergisi. 1(2):98-104.

4. Anonymous. 2015. Bartın Üniversitesi Bülten (Bulletin of Bartın University). Volume 23 (October, November, December).

5. Aydın, D., Ter, Ü. 2008. Outdoor space quality: Case study of a university campus plaza. International Journal of Architectural Research, 1:189-203.

6. Azemati, S., Mozaffar, F., Hosseini, S.B., Hayaty, H. 2014. The effect of multi-functional spaces on the acceptability of open spaces of university campuses from the students points of view. International Journal of Basic Sciences & Applied Research, 3:12-19

7. Carrus, G., Scopelliti, M., Lafortezza, R., Colangelo, G., Ferrini, F., Salbitano, F., Agrimi, M., Luigi Portoghesi, L., Semenzato, P., Sanesi, G. 2015. Go greener, feel better? The positive effects of biodiversity on the well-being of individuals visiting urban and peri-urban green areas. Landscape and Urban Planning, 134:221-228.

8. Dönmez, Y., Türkmen, F., Çabuk, S. 2015. Üniversite yerleşkelerinin planlarına ilişkin öğrenci görüşleri (Students' Opinions on The Plan of University Campus). Uluslararası Hakemli Tasarım ve Mimarlık Dergisi, 6:1-11.

9. Ertekin, M., Çorbacı, Ö.L. 2010. Üniversite kampüslerinde peyzaj tasarımı (Karabük Üniversitesi Peyzaj Projesi örneği)-Landscape Planning at University Campuses (The Landscape Project Case Study of Karabük University). Kastamonu Üniversitesi, Orman Fakültesi Dergisi, 10(1):55-67.

10. Gül, S., Küçük, V. 2001. Kentsel açık-yeşil alanlar ve Isparta kenti örneğinde irdelenmesi (The Research of Isparta and The Open Green Areas in Urban). Süleyman Demirel Üniversitesi, Orman Fakültesi Dergisi, 2:27-48.

11. Hipp, J.A., Gulwadi, G.B., Alves, S., Sequeira, S. 2015. The relationship between perceived greenness, perceived restorativeness of university campuses and student-reported quality of life. Environment and Behavior, 1-17.

12. Karakaş, N.B. 1999. Üniversite Kampüslerinin Fiziksel Gelişim Planı Hazırlama Süreci ve Bartın Orman Fakültesinin Bu Bağlamda İrdelenmesi (Physical Development Plan Preparation Process of University Campuses and Evaluation of Bartın Forestry Faculty Within This Concept), Zonguldak Karaelmas Üniversitesi, Fen Bilimleri Enstitüsü, Yüksek Lisans tezi, s. 202, Bartın.

13. Korkut, A.B., Çilek, M.S. 2005. Üniversite Yerleşkeleri Peyzaj Planlama İlkeleri (Landscape Planning Principles of University Campuses), II. Ulusal Üniversite Yerleşke Planlaması ve Çevre Düzenlemesi Çalıştayı, 9-10 Haziran, Kahramanmaraş.

14. Lau, S.S.Y., Yang, F. 2009. Introducing healing gardens into a compact university campus: Design natural space to create healthy and sustainable campuses. Landscape Research, 34(1):55-81.

15. Likert, R. 1932. "A Technique for the Measurement of Attitudes". Archives of Psychology, 140:1–55.

16. McFarland, A.L., Waliczek, T.M., Zajicek, J.M. 2008. The relationship between student use of campus green spaces and perceptions of quality of life. Hort Technology, 18(2):232-238.

17. Tiyarattanachai, R., Hollmann, N.M. 2016. Green campus initiative and its impacts on quality of life of stakeholders in green and non-green campus universities. Springer Plus, 5(84):1-17.

18. Topay, M., Kaya, L.G., Yildirim, B., İkiz, E., Demirtaş, S.Ö. 2003. ZKÜ Bartın Yerleşkesi Kampüs Bilgi Sistemi (Campus Information System of the ZKU Bartın Campus), 5(5):71-77.

19. Townend, J. 2001. Practical Statistics for Environmental and Biological Scientists. John Wiley & Sons, Ltd. West Sussex, England.

20. Turgut, H., Yeşil, P., Yilmaz, S. 2009. Determining the recreational demands and tendencies of students at Atatürk University through questionnaires. Scientific Research and Essay, 4(3):152-158.

21. Yılmaz, S. 2015. Bir kampüs açık mekanının peyzaj tasarımı: Süleyman Demirel Üniversitesi Orman Fakültesi binası (Landscape design of a campus outdoor spaces: Süleyman Demirel University Faculty of Forestry building). Kastamonu Üniversitesi, Orman Fakültesi Dergisi, 15(2):297-307

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