



## The Investigation of the Level of Fulfilment: The Basic Needs of Architecture Students

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### ABSTRACT

**Purpose:** In order to improve the quality of education, it is important to identify the basic needs of first-year students who receive architectural education. The objective of this research was to investigate the level of basic needs satisfaction of first-year students receiving education in the architecture department.

**Research Methods:** In this research, a relational screening model, which is one of the general survey models, was used. Students' perception in terms of satisfaction of basic needs was measured with University Students' Basic Needs Scale. Moreover, information related to socio-demographical characteristics was collected via the Personal Information Questionnaire.

**Findings:** Research findings indicated that the satisfaction levels of basic needs of architecture students participating in the research were generally above 4, which was the neutral score level. The lowest satisfaction level for all five basic needs was determined to be related to the survival need. Furthermore, it was concluded that students' perception in terms of basic need satisfaction significantly differed with respect to their academic grade points, genders, the residential units where they mostly resided and educational status of their parents.

**Implications for Research and Practice:** Depending on the class level, it may be ensured that more comprehensive evaluations are made about the students' perceptions of needs. In new studies, other variables that might have an effect on basic needs satisfaction may also be included.

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## Introduction

It is known that the primitive man needed to feed for continuing his life and to build a shelter for sheltering and protection. These basic requirements have an important place in the emergence of the concept of architecture, which can be expressed as the design process of the built environment. The basis of architecture is human life. Living in a built environment shows that architecture is one of the oldest professions. The individual involved in architecture education, aiming to contribute to both personal and professional development, has to improve his/her professional knowledge and mastery with the experience he/she gains in the process. In architecture education, it is expected that knowledge is not only acquired at the cognitive level but also through mental processes and through effective concepts.

In respect to such aspects, discipline of architecture differs from many other disciplines and provides an interactive learning environment in which students are mentally, sensorially, and intuitively centralized. Discipline of architecture in which interaction and sharing are effective sustains its dynamism not only inside but also outside of schools. This situation includes independent activities with no limited time rather than learning processes that are restricted to course hours. In these processes, learners play effective roles by means of individual and group studies. It is so important both physically and psychologically to improve concentration that is particularly required during individual studies progressing based on design problem. Meanwhile, individual differences have to be paid sufficient attention.

The first year of the university is of particular importance for the education process in terms of the first step towards a new social environment and profession. From this point of view, in order to improve the quality of education, it is important to identify the basic needs perceptions of first-year students who receive architectural education. Ozdel, Bostancı, Ozdel and Oguzhanoglu (2002) state that students who get a chance to study at the university have concerns about leaving the family, acquiring a new environment, being alone and having economic difficulties.

Ensuring compliance with new situations is directly related to students' perception of basic needs satisfaction. Copeland (1992) stresses the importance of fulfilling basic needs for people to feel under control and to get closer to success. Freud explained human behavior mostly on the basis of biological needs and motives. Maslow (1943) developed a broad theory that combined various views. According to the five hierarchical classification of importance and priority, we can list; physiological requirements (nutrition, sleep, etc.), the need for security (physical, economic and social security), the need for belonging and love (belonging to the group, love-loving), the need to respect (respect, reputation, fame) and the need for success (success, self-reproducing, performing) (Inceoglu, 2011). Glasser (2005) states that the basis of human movements is constituted of five genetic needs. According to the choice theory approach, the assumption is put forth that happiness can only be achieved if the basic needs of the people are met sufficiently. In relation to this, according to Glasser, needs based on physiological needs (survival) and psychological needs (love and belonging,

power, freedom, entertainment) constitute the basic needs of people. The five basic requirements identified by Glasser can be summarized as follows.

The need for survival is the most basic need of humans. It is the source of behavior in which vital functions are controlled by the brain and conscious behaviors are mobilized. It includes basic physical needs such as food, water, air, housing, heating, security and reproduction (Frey & Wilhite, 2005; Kaner, 1993). The need for power can be expressed by being successful, having status, being recognized and valued. In achieving success, it is a need providing a sense of motivation and self-esteem in obtaining approval. It is based on the need to have the ability and capacity to do something. We have the ability to use our creativity as much as we can use our freedom in a way that does not conflict with other people (Frey & Wilhite, 2005; Glasser, 1998). The need for entertainment is manifested as a need in people's genetic structures. It is expressed as the desire to participate in the activities which provide pleasant feelings and whose purpose is giving pleasure. Taking pleasure while producing and learning something is associated with the need for hearing, playing and experiencing humor (Corey, Corey, & Corey, 2013; Glasser, 1998). The need for love and belonging depends on people's seek for love and devotion. The need to be with others is the foundation for the forming of human relations. It is related to the bonds established in family, friends and business relations. It is important to develop good relations in order to meet the needs of love and other social needs. The level of interaction with other people and the level of fulfilment of the needs explain to what extent satisfaction and love needs can be satisfied (Frey & Wilhite, 2005; Glasser, 1998). The need for freedom means that a person has his/her own choices and he/she wants to walk in line with these choices. People want to live their lives as they wish, to express themselves freely and to act independently in many other ways. However, socially being free is associated with being open to alternative ideas rather than selfishness (Erwin, 2003; Frey & Wilhite, 2005).

Although the five basic needs mentioned are genetically present in humans, fulfilment of these needs is specific to the individual. The information obtained from the outside consists of knowledge and the choice of how to behave towards this information is shaped by intrinsic motivations. When literature was examined, it was seen that the level of basic needs being met in architectural students was not studied in any of the studies. In this context, this research aimed to reveal the level of fulfilment of the basic needs of first-year students studying architecture. Hypotheses developed as part of the research are as follows;

H<sub>1</sub>: a significant relation exists between fulfillment level of students' basic needs and their academic achievement status.

H<sub>2</sub>: fulfillment level of students' basic needs varies depending on gender.

H<sub>3</sub>: fulfillment level of students' basic needs varies depending on locations where they live most of their life.

H<sub>4</sub>: fulfillment level of students' basic needs varies depending on their mothers' educational status.

H<sub>5</sub>: fulfillment level of students' basic needs varies depending on their fathers' educational status.

In accordance with the aforementioned hypotheses, an answer is sought for the following questions:

1. What is the fulfillment level of first grade architecture student's basic needs?
2. Does point average related to the fulfillment level of students' basic needs vary significantly depending on their academic standing?
3. Does point average related to the fulfillment level of students' basic needs vary significantly depending on the following factors?
  - a) Gender
  - b) Location where they live most of their life
  - c) Parents' educational status

## Method

### *Research Design*

In this research, a relational screening model, which is one of the general survey models, was used. Screening models are appropriate approaches for studies that aim to describe a past or currently existing situation in the way it exists. In general, screening models are screening applications applied to the entire population or a group of sample or sampling in order to have a general judgment of a population that consists of a large number of elements. The relational screening models in this group are research models aiming to determine the existence of covariance or the level of variance between two or more variables (Karasar, 2016).

### *Research Sample*

The research was conducted with first-year students studying at Architecture Department of Karadeniz Technical University Faculty of Architecture in the fall semester of the 2018-2019 academic year. A total of 82 students, 46 female and 36 male, participated in the research. Distribution of the participants' socio-demographic characteristics is presented in Table 1.

**Table 1**

*Socio-Demographic Characteristics of the Participants of the Research*

Variable	Groups	Number	Percentage
Gender	Female	46	56.1
	Male	36	43.9
Academic GPA	2.01-2.50	25	30.5
	2.51-3.00	34	41.5
	3.01-3.50	13	15.9
	3.51-4.00	10	12.2

Table 1 Continue

Variable	Groups	Number	Percentage
Mothers' Level of Education	Primary-Secondary School	52	63.4
	High school	21	25.6
	University	9	11
Father's Level of Education	Primary-Secondary School	28	34.1
	High school	21	25.6
	University	33	40.2

When the distribution of socio-demographic characteristics in Table 1 was examined, it was determined that 56.1% of the students were female and 43.9% were male. It is seen that 30.5% of students had academic grade point average of 2.01-2.50, 41.5% of 2.51-3.00, 15.9% of 3.01-3.50, and 12.2% of 3.51-4.00.

#### Research Instruments and Procedures

*The University Students Basic Needs Scale:* In order to determine the level of fulfilment of the basic needs of the students, the University Students Basic Needs Scale (USBNS) developed by Turkdogan (2010) was used. The USBNS is used to evaluate the level of fulfilment of university students' survival, power, entertainment, love and belonging, and freedom needs. As a result of validity and reliability studies, the scale consists of 5 sub-dimensions and 19 items. In the 7-point Likert-type measurement tool USBNS, there are four items of survival, power, freedom, entertainment, and in the sub-dimension of love and belonging there are three items. Each statement is answered by choosing among the options of: "(1) I don't disagree at all", "(2) I mostly disagree", "(3) I don't agree much", "(4) I'm indecisive", "(5) I partially agree", "(6) I mostly agree" and "(7) I completely agree". As the average score obtained from the scale increases, it is accepted that the needs are met smoothly and the students' satisfaction level is high. As a result of the exploratory factor analysis of the scale form, a five-factor structure with self-value between 1.31 and 5.47, which explained 67.40% of the variance, was reached. In addition, confirmatory factor analysis results showed that the scale had good fit values for construct validity without any modification ( $\chi^2/df=3.36$ ;  $GFI=.96$ ,  $AGFI=.94$ ,  $CFI=.96$ ,  $RMSEA=.045$ ,  $SRMR=.034$ ) (Turkdogan & Duru, 2017).

*The personal information form:* It was developed for the purpose of determining gender, socio-demographic characteristics such as residential area where much of life is spent, mother's education status, father's education status, and academic grade point average of the students participating in the research. The data related to the academic grade point average of students was obtained from the Department of Architecture of Karadeniz Technical University within the scope of ethical procedures. Fraenkel, Wallen and Hyun (2012) emphasize the importance of including socio-demographic data and states that all data representing the sample should be reported in order for the sample to be more fully defined and to support research.

The USBNS and personal information form were applied to the students in the classroom. Before the application, the students were briefly informed about the scope

of the research and it was stated that the data would be used only within the scope of the research. Filling of the scales by students was completed in about fifteen minutes.

### Data Analysis

The compatibility of the data obtained from the research to normal distribution was determined by the Kolmogorov-Smirnov test. In the analysis of data, Mann Whitney U test and Kruskal Wallis tests were used to determine whether there was a statistically significant difference. Statistical analysis was performed using the Statistical Package for the Social Sciences (SPSS 18.0). Data analysis was valid at 95% confidence level and the significance level was taken as .05.

## Results

Normal distribution analyses of the data obtained in the research were conducted. The mean score, minimum and maximum score range, skewness and kurtosis coefficients were calculated within the scope of this analysis. Since the number of participants was over 50, compliance of the obtained data with the normal distribution was determined by the Kolmogorov-Smirnov test. Data analysis was valid at 95% confidence level and its significance level was accepted as .05. According to the tests performed, the results of the tests of normality for the scores of the measurement sets are presented below (Table 2).

**Table 2**

*Results of Normality Tests for Distribution of Data*

	Kolmogorov-Smirnov (a)			Median	Skewness	Kurtosis
	Statistic	df	p			
Survival	.120	82	.006	4.875	-.185	-.374
Power	.076	82	.200	5.250	-.428	.470
Entertainment	.148	82	.001	5.750	-.499	-.899
Love and Belongingness	.194	82	.001	6.167	-.637	-1028
Freedom	.150	82	.001	5.750	-1.008	.799

*df*: Degree of freedom

*p*: Significance level

As a result of Kolmogorov-Smirnov (a) analysis, it was determined that the distribution of the data related to power subscale was normal ( $p > .05$ ). However, it was determined that the distribution of data on survival, entertainment, love, and belonging and freedom subscales were not normal ( $p < .05$ ). When the other assumptions of normality, which are the proximity of the mean and median to each other and the necessity that the values of skewness and kurtosis to be between -2.5 and +2.5 are examined, it was determined that these values complied with the normal distribution according to the variables. In the central limit theorem, it is posited that a sample size of more than 30 makes the distribution close to normal. Since the sample size was 82 in this research, it was concluded that even though the distribution was not normal, it was not far away from the normal distribution given by the central limit

theorem. In the light of this information, it was determined that the data were not far away from normal distribution.

The data on the level of fulfilment of the basic needs of the students are summarized in Table 3. When the descriptive statistics of the USBNS were examined, it was determined that the subscale having the highest level was love and belonging ( $X=5.793$ ), while the lowest subscale was survival ( $X=4.716$ ) (Table 3).

**Table 3**

*Descriptive Statistics of the University Students Basic Needs Scale*

Subscales	N	$\bar{X}$	SD
Survival	82	4.716	1.059
Power	82	5.296	.944
Entertainment	82	5.317	1.369
Love and Belongingness	82	5.793	1.197
Freedom	82	5.396	1.104

N: Sample size

$\bar{X}$ : Sample mean

SD: Standard deviation

The Kruskal Wallis H test was applied to determine whether there was a significant difference between the mean scores of the students' basic needs and their academic achievement (Table 4).

**Table 4**

*Results of Differences between Students' Scores of Subscales According to Their GPAs*

Subscales	Academic GPA	N	Mean Rank	$\chi^2$	SD	p	Difference
Survival	2.01-2.50	25	40.36	7.517	3	.057	
	2.51-3.00	34	45.82				
	3.01-3.50	13	26.42				
	3.51-4.00	10	49.25				
Power	2.01-2.50	25	39.62	3.445	3	.328	
	2.51-3.00	34	40.71				
	3.01-3.50	13	37.42				
	3.51-4.00	10	54.20				
Entertainment	2.01-2.50	25	34.06	11.141	3	.011*	1-2
	2.51-3.00	34	51.85				2-3
	3.01-3.50	13	33.38				2-4
	3.51-4.00	10	32.95				
Love and Belongingness	2.01-2.50	25	44.60	11.236	3	.011*	1-3
	2.51-3.00	34	43.69				2-3
	3.01-3.50	13	22.23				3-4
	3.51-4.00	10	51.35				
Freedom	2.01-2.50	25	40.16	8.902	3	.031*	
	2.51-3.00	34	49.51				2-3
	3.01-3.50	13	28.04				
	3.51-4.00	10	35.10				

\* $p < .05$

$\chi^2$ : Chi-square

When the data in Table 4 were analyzed, it was seen that there was no statistically significant difference between the level of fulfilment of students' survival and power needs and the academic grade point average ( $p>.05$ ). On the other hand, it was determined that there was a statistically significant difference between the students' level of fulfilment of the needs of entertainment, love and belonging, freedom and their academic grade point average ( $p<.05$ ). In the present case,  $H_1$  hypothesis was partially accepted. In the survival subscale, it was observed that the average of the students whose grade point average was 3.51-4.00 had the highest (Mean rank=49.25), and those whose grade point average was 3.01-3.50 (Mean rank=26.42) had the lowest ranking of average. In the power subscale, it was found that the students with an academic GPA of 3.51-4.00 (Mean rank=54.20) had the highest rank average, the students with an academic GPA of 3.01-3.50 (Mean rank=37.42) had the lowest rank average. In the entertainment subscale, it was determined that the students with the academic average 2.51-3.00 (Mean rank=51.85) had the highest ranking of average, while the average of the students between 3.51-4.00 (Mean rank=32.95) had the lowest ranking of average. In the love and belonging subscale, it was found that the students with an academic GPA of 3.51-4.00 (Mean rank=51.35) had the highest rank average, and the students with an academic GPA of 3.01-3.50 (Mean rank=22.23) had the lowest rank average. In the freedom subscale, it was found that the students with an academic GPA of 2.51-3.00 (Mean rank=49.51) had the highest rank average, and the students with an academic GPA of 3.01-3.50 (Mean rank=28.04) had the lowest rank average.

The Mann Whitney U test was used to determine whether the mean scores of the students' basic needs were significantly different according to their gender (Table 5).

**Table 5**

*Results of Differences between Students' Scores of Subscales According to Their Genders*

Subscales	Gender	N	Mean Rank	U	p
Survival	Female	46	44.41	694.00	.208
	Male	36	37.78		
Power	Female	46	42.13	799.00	.786
	Male	36	40.69		
Entertainment	Female	46	43.07	756.00	.499
	Male	36	39.50		
Love and Belongingness	Female	46	46.77	585.50	.022*
	Male	36	34.76		
Freedom	Female	46	45.47	645.50	.086
	Male	36	36.43		

\* $p<.05$

U: U value

According to the Mann Whitney U test, there was no significant difference among the level of survival, power, entertainment and freedom of male and female students ( $p>.05$ ). The difference in the level of fulfilment of the need for love and belonging of students was found statistically significant at 95% confidence level ( $U=585.50$ ,  $p=.022$ ,  $p<.05$ ). In the present case,  $H_2$  hypothesis was partially accepted. It was observed that the love and belonging levels of the females (Mean rank=46.7) were higher than the males (Mean rank=34.76).

Kruskal Wallis H test was used in order to determine whether there was a significant difference between the average of fulfilment of the students' basic needs compared to the average of the settlement where they spend most of their lives (Table 6).

**Table 6**

*Results of Differences between Students' Scores of Subscales According to Their Settlement Places*

Subscales	Settlement Places	N	Mean Rank	$\chi^2$	SD	p	Difference
Survival	Village-Town	12	37.79	.999	3	.802	
	District	12	42.42				
	Province	32	44.34				
	Metropolitan city	26	39.29				
Power	Village-Town	12	51.96	11.177	3	.011*	1-3
	District	12	49.63				
	Province	32	30.83				
	Metropolitan city	26	46.06				
Entertainment	Village-Town	12	20.13	12.803	3	.005*	1-2 1-3 1-4
	District	12	45.92				
	Province	32	41.72				
	Metropolitan city	26	49.06				
Love and Belongingness	Village-Town	12	47.92	6.108	3	.106	
	District	12	49.83				
	Province	32	33.86				
	Metropolitan city	26	44.10				
Freedom	Village-Town	12	28.50	6.012	3	.111	
	District	12	43.54				
	Province	32	40.03				
	Metropolitan city	26	48.37				

\* $p < .05$

According to the results of Kruskal Wallis H test, it was determined that there was no statistically significant difference between the fulfilment level of survival, love and belonging, freedom needs of the students, and the settlement units ( $p > .05$ ). In contrast, the fulfilment level of the students' power ( $\chi^2 = 11.177$ ,  $p = .011$ ,  $p < .05$ ) and entertainment ( $\chi^2 = 12.803$ ,  $p = .005$ ,  $p < .05$ ) were found statistically significant at 95% confidence level compared to settlement units. In the present case,  $H_3$  hypothesis was partially accepted. When the data in Table 6 were examined, the highest rank average in the survival subscale belonged to the students who spend most of their lives in "Province" (Mean rank=44.34), while the lowest average belonged to the students living in a "Village-town" (Mean rank=37.79). It was seen that the highest order average in the power subscale belonged to the students who have spent most of their lives in "Village-

town" (Mean rank=51.96) while the lowest average belonged to the students living in "Province" (Mean rank=30.83). It was found that the highest average rank in the entertainment subscale belonged to the students who spend most of their lives in "Metropolitan city" (Mean rank=49.06) while the lowest average belonged to students living in the "Village-town" (Mean rank=20.13). It was determined that the highest rank average in the love and belonging subscale belonged to the students who spend most of their lives in the "District" (Mean rank=49.83) while the lowest average belonged to the students living in the "Province" (Mean rank=33.86). In the freedom subscale, it was seen that the highest rank average belonged to the students, who spend most of their lives in "Metropolitan city" (Mean rank=48.37), while the lowest rank average belonged to students living in "Village-town" (Mean rank=28.50).

Kruskal Wallis H test was used in order to determine whether there was a significant difference in the level of fulfilment of the basic needs of the students according to the status of their mother's education (Table 7).

**Table 7**

*Results of Differences between Students' Scores of Subscales According to Their Mothers' Level of Education*

Subscales	Mothers' Level of Education	N	Mean Rank	$\chi^2$	SD	p	Difference
Survival	Primary-School	52	44.96	5.828	2	.054	
	High school	21	30.76				
	University	9	46.56				
Power	Primary-School	52	42.57	.416	2	.812	
	High school	21	40.67				
	University	9	37.28				
Entertainment	Primary-School	52	37.27	5.043	2	.080	
	High school	21	46.97				
	University	9	53.61				
Love and Belongingness	Primary-School	52	44.72	6.831	2	.033*	1-3 2-3
	High school	21	41.64				
	University	9	22.56				
Freedom	Primary-School	52	40.97	8.960	2	.011*	1-3 2-3
	High school	21	33.98				
	University	9	62.11				

\* $p < .05$

According to the results of Kruskal Wallis H test, it was determined that there was no statistically significant difference between the level of survival, power and

entertainment needs of the students and the levels of maternal education ( $p>.05$ ). However, the difference in the students' levels of the fulfilment of love and belonging according to the mother's educational status was found statistically significant at 95% confidence level ( $\chi^2=6.831, p=.033, p<.05$ ) and freedom ( $\chi^2=8.960, p=.011, p<.05$ ). In the present case,  $H_4$  hypothesis was partially accepted. When the data in Table 7 were examined, it was determined that the students whose mothers were "University" graduates had the highest average (Mean rank=46.56), and those whose mothers were "High school" graduates (Mean rank=30.76) had the lowest average in the survival subscale. In the power subscale, it was observed that the students whose mothers were "Primary-Secondary school" had the highest average (Mean rank=42.57), and those whose mothers were "University" graduates (Mean rank=37.28) had the lowest average. In the entertainment subscale, it was determined that the students whose mothers were "University" graduates had the highest average (Mean rank=53.61), and those whose mothers were "Primary-Secondary school" (Mean rank=37.27) had the lowest average. In the love and belonging subscale, it was determined that the students whose mothers were "Primary-Secondary school" graduate had the highest average (Mean rank=44.72), and those whose mothers were "University" graduate (Mean rank=22.56) had the lowest average. Freedom subscale, it was determined that the students whose mothers were "University" graduate had the highest average (Mean rank=62.11), and those whose mothers were "High school" graduate (Mean rank=33.98) had the lowest average.

Kruskal Wallis H test was used in order to determine whether there was a significant difference between the level of fulfilment of the basic needs of the students according to their father's education level (Table 8).

**Table 8**

*Results of Differences between Students' Scores of Subscales According to Their Fathers' Level of Education*

Subscales	Father's Level of Education	N	Mean Rank	$\chi^2$	SD	p	Difference
Survival	Primary-Secondary School	28	42.39	.597	2	.742	
	High school	21	44.00				
	University	33	39.15				
Power	Primary-Secondary School	28	42.96	2.345	2	.310	
	High school	21	34.76				
	University	33	44.55				
Entertainment	Primary-Secondary School	28	39.09	4.501	2	.105	
	High school	21	34.60				
	University	33	47.94				

Table 8 Continue

Subscales	Father's Level of Education	N	Mean Rank	$\chi^2$	SD	p	Difference
Love and Belongingness	Primary-Secundary School	28	36.25	2.635	2	.268	
	High school	21	41.36				
	University	33	46.05				
Freedom	Primary-Secundary School	28	38.95	6.179	2	.046*	2-3
	High school	21	33.19				
	University	33	48.95				

\* $p < .05$ 

According to the results of Kruskal Wallis H test, it was determined that there was no statistically significant difference between the level of survival, power, entertainment and love and belonging needs of the students and the status of the father's education ( $p > .05$ ). However, the difference in the students' levels of the fulfilment of freedom according to the father's educational status was found statistically significant at 95% confidence level ( $\chi^2 = 6.179$ ,  $p = .046$ ,  $p < .05$ ). In the present case,  $H_5$  hypothesis was partially accepted. When the data in Table 8 were analyzed, it was determined that the students whose fathers were "High school" graduate had the highest average (Mean rank=44.00), and those whose fathers were "University" graduate (Mean rank=39.15) had the lowest average in the survival subscale. In the power subscale, it was determined that the students whose fathers were "University" graduate had the highest average (Mean rank=44.55), and those whose fathers were "High school" graduate (Mean rank=34.76) had the lowest average. In the entertainment subscale, it was determined that the students whose fathers were "University" graduate had the highest average (Mean rank=47.94), and those whose fathers were "High school" graduate (Mean rank=34.60) had the lowest average. In the love and belonging subscale, it was determined that the students whose fathers were "University" graduate had the highest average (Mean rank=46.05), and those whose fathers were "Primary-Secundary school" graduate (Mean rank=36.25) had the lowest average. In the freedom subscale, it was determined that the students whose fathers were "University" graduate had the highest average (Mean rank=48.95), and those whose fathers were "High school" graduate (Mean rank=33.19) had the lowest average.

### Discussion, Conclusion and Recommendations

The first research question aimed at determining the level of fulfilment of the basic needs of the students. As a result of the analyses, it was determined that the level of fulfilment of the basic needs of the architectural students participating in the research had an average of over 4, which is generally a neutral score level. Among the five basic needs, students were found to have received the highest satisfaction from the need for love and belonging. The level of fulfilment of the need for love and belonging was followed by the levels of freedom, entertainment, power and survival, respectively. It

was observed that the lowest level regarding fulfilment of the basic needs was related to the survival need. This result supports the findings of the studies conducted by Diener and Diener (1995) and Turkdogan (2010).

For the second question of the research, it was determined whether there was a significant difference between the level of fulfilment of students' basic needs and their academic achievement. It is observed that there was a statistically significant difference between the grade point average of the students and the level of their needs for love and belonging, freedom and entertainment being met. Accordingly, it can be said that students whose academic grade point average were between 2.51-3.00 were more satisfied in their lives and had a higher level of satisfaction about sparing time for the activities they are interested in. It was seen that the satisfaction of the need of love and belonging was higher for students with an average of academic grade between 3.51-4.00. This finding suggests that students' satisfaction with their family and friendship relations is in parallel with their good level of academic achievement.

When fulfillment level of requirement of freedom was considered, it was seen that students with 2.51 to 3.00 academic grade point averages had a higher level of satisfaction in making their own choices and expressing themselves freely, which reveals that students need an interaction-based learning environment which enables them to act independently in making their own decisions. Onat (2006) suggests that it is required to provide creative environments and processes that will be able to head students towards creativity. This process makes it essential to give importance to lesson, try to understand the essence of contents, and participate enthusiastically in the stages of examination and evaluation. Therefore, it is preferable to allow for methods and approaches that help students to act in accordance with their own choices and express themselves freely.

Within the scope of the third question of the research, it was questioned whether the level of fulfilment of the basic needs of the students showed a significant difference according to the variables such as gender, settlement unit, mother's education status and father's educational status. Analyses carried out according to gender variables showed that only the levels of fulfilment of the need for love and belonging of the students differed according to gender. The levels of love and belonging of female students were found to be higher than that of males. It was seen that female students had higher levels of love-being loved, emotional attachment and belonging satisfaction than male students. From the perspective of participation in social life and socialization, it can be said that this is an expected result depending on gender.

It is seen that the level of fulfilment of the power and entertainment needs of the students varied according to the settlement unit. The highest satisfaction in terms of power needs belonged to the students who spend most of their lives in the village-town, and the lowest satisfaction belonged to the students who spend most of their lives in the province. This finding shows that students' perceptions of self-esteem and competence do not change according to the size of the settlement unit. Given the fact that being recognized in the social circle, relations and the sense of belonging increase towards rural areas, this is an expected result. On the contrary, it was determined that

the students who spend most of their lives in villages-towns had the lowest satisfaction in need for fun, and those who spend most of their lives in big cities had the highest satisfaction. In terms of providing pleasant places such as cinema, theater, shopping center, cafe/restaurant, the metropolitan has increased the opportunity for students to participate in social and artistic activities; and hence, the satisfaction need for entertainment. This differentiation, which is determined according to the unit of life, is similar to that of Turkdogan (2010).

It was seen that the fulfillment level of students' needs for love & belonging and freedom who participated in the research varied depending on mother's educational status. It was revealed that students whose mothers were elementary-middle school graduate had the highest satisfaction level with the need for love and belonging while those whose mothers were university graduate had the lowest one. This situation can be explained by means of the fact that mothers with a good level of education give more particular importance to their children's education. It was found out that the students whose mothers were university graduate had a higher satisfaction level with the need for freedom. Similarly, it was seen that the students whose fathers were university graduate had the highest satisfaction level with the need for freedom. The fact that the satisfaction level of the need for freedom varies in parallel with both mothers' and fathers' education status suggests that parents with high education level are able to more deliberately guide their children in making decisions related to their own lives.

In this research, the level of fulfilment of the basic needs of first-year students studying at the Department of Architecture of Karadeniz Technical University was determined and presented with supporting socio-demographic data. Findings showed that students' perceptions about basic needs satisfaction varied according to their grade point averages, genders, settlements where they spend the majority of their lives, and parental educational attainment. With its unique structure, architecture education has learning environments that provide students with the opportunity to be free in their own development, creative thinking and design. From this point of view, it seems possible to increase the satisfaction of architecture students' power and freedom needs in particular. Since interactive processes experienced, especially in practical courses, allow to get familiar with students, directing students to their areas of interest can also be made easier. In addition, it is thought that the participation of the students in social, artistic and sportive activities in the department or campus is expected to contribute to increase the satisfaction of their entertainment needs. In addition to these, educational environment of architecture that is based on on informal learning is a guide to providing students with personal and professional development through potentials such as tours, panels, and workshops. Group work, which will enable students to communicate-interact with each other during the course, is important in terms of increasing the satisfaction of their love and belonging and freedom needs. Exchange of information and ideas, and cooperative decision-making can be effective in increasing the motivation of students and making them feel good about themselves. The ability to express students' ideas freely in the learning process

is important in the context of the satisfaction of their basic need for power, as it will bring them closer to the sense of success and sufficiency.

Limitation of the research was the fact that the research consisted of only the first-year students of Karadeniz Technical University, Department of Architecture in 2018-2019 academic year fall semester. For this reason, it may be advisable to carry out studies on the level to which basic needs are met at different stages of architectural education in order to achieve generalizable results. Thus, depending on the class level, it may be ensured that more comprehensive evaluations are made about the students' perceptions of needs. In new studies, other variables that might have an effect on basic needs satisfaction may also be included. Also, in the future studies, the fulfilment level of the basic needs may be related to the data obtained from different measurement tools.

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## Mimarlık Öğrencilerinde Temel İhtiyaçların Karşılanma Düzeylerinin İncelenmesi

### Atıf:

- Kilicaslan, H. (2020). The investigation of the level of fulfilment the basic needs in architecture students. *Eurasian Journal of Educational Research*, 87, 29-46. DOI: 10.14689/ejer.2020.87.2

### Özet

*Problem Durumu:* Yaşamın yapılı çevre içinde geçmesi, mimarlık mesleğinin en eski mesleklerden olduğunu göstermektedir. Hem kişisel hem de mesleki gelişime katkı sağlamayı hedefleyen mimarlık eğitiminde yer alan birey, süreç içerisinde edindiği deneyimlerle mesleki donanımını geliştirmek durumundadır. Yeni bir sosyal çevreye ve mesleğe ilk adım açısından üniversitenin ilk yılı, eğitim süreci için ayrı bir önem taşımaktadır. Bu açıdan bakıldığında, mimarlık eğitimi alan birinci sınıf öğrencilerinde temel ihtiyaç algılarının ortaya çıkarılması eğitim kalitesinin artırılması yönünde önemlidir. Kendine özgü yapısı ile mimarlık eğitimi, öğrencilerin kendilerini geliştirmelerinde, yaratıcı düşüncelerinde ve tasarımlarında özgür davranma imkânı sunan öğrenme ortamlarına sahiptir. Bu açıdan bakıldığında, mimarlık öğrencilerinin özellikle güç ve özgürlük ihtiyaç doyumlarının artırılabilmesi olanaklı gibi görünmektedir. Uygulamalı derslerde yaşanan interaktif süreçler, öğrencilerin yakından tanınmasını sağladığından, onların ilgi duydukları alanlara yönlendirilmeleri de kolaylaştırabilir. Bunların yanı sıra öğrencilerin bölüm veya kampüs içinde sosyal, sanatsal ve sportif etkinliklere katılımlarının, eğlence ihtiyaç doyumunun artırılmasına katkı sağlayacağı düşünülmektedir. Ders süresince

öğrencilerin birbirleriyle iletişim-etkileşim içinde olmalarını sağlayacak grup çalışmaları, sevgi ve ait olma ve özgürlük ihtiyaç doyumlarının artırılması açısından önemlidir. Bilgi ve fikir alışverişinde bulunma, birlikte karar verme eylemleri öğrencilerin motivasyonlarını artırmada ve kendilerini iyi hissetmelerinde etkili olabilecektir. Öğrenme sürecinde öğrencilerin fikirlerini özgürce ifade edebilmelerine olanak tanınması, kendilerini başarıya ve yeterli hissetmelerine yakınlaraştıracağından, güç temel ihtiyacının doymu bağlamında önemlidir. Alan yazın incelendiğinde, mimarlık öğrencilerinde temel ihtiyaçların karşılanma düzeylerinin herhangi bir araştırmaya konu edilmediği görülmüştür. Bu bağlamda araştırma, mimarlık eğitimi alan birinci sınıf öğrencilerinin temel ihtiyaçlarının karşılanma düzeylerini ortaya koymayı amaçlamıştır.

*Araştırmanın Amacı:* Bu araştırmanın amacı, mimarlık eğitimi alan birinci sınıf öğrencilerinin temel ihtiyaçlarının hangi düzeyde karşılanmakta olduğunu incelemektir. Araştırma kapsamında Karadeniz Teknik Üniversitesi Mimarlık Bölümü'nde eğitim alan birinci sınıf öğrencilerinin temel ihtiyaçlarının karşılanma düzeyleri tespit edilmiş ve sosyo-demografik verilerle desteklenerek sunulmuştur.

*Araştırmanın Yöntemi:* Bu çalışmada, genel tarama modellerinden ilişkisel tarama modeli kullanılmıştır. Tarama modelleri, geçmişte ya da halen var olan bir durumu var olduğu şekli ile betimlemeyi amaçlayan araştırmalar için uygun yaklaşımlardır. Araştırma, 2018-2019 eğitim-öğretim bahar yarıyılında Karadeniz Teknik Üniversitesi Mimarlık Fakültesi Mimarlık Bölümü'nde öğrenim görmekte olan birinci sınıf öğrencileri ile gerçekleştirilmiştir. Araştırmaya 46'sı kadın ve 36'sı erkek olmak üzere toplam 82 öğrenci katılmıştır.

*Araştırmanın Bulguları:* Yapılan analizler sonucunda araştırmaya katılan mimarlık öğrencilerinin temel ihtiyaçlarının karşılanma düzeylerinin genel olarak nötr puan düzeyi olan 4'ün üzerinde bir ortalamaya sahip olduğu belirlenmiştir. Öğrencilerin beş temel ihtiyaç arasında en yüksek doymu sevgi ve ait olma ihtiyacından aldıkları ortaya çıkmıştır. Sevgi ve ait olma ihtiyacı karşılanma düzeyini, sırasıyla özgürlük, eğlence, güç ve hayatta kalma ihtiyaçlarının karşılanma düzeyleri takip etmektedir. Öğrencilerin eğlence, sevgi ve ait olma ve özgürlük ihtiyaçlarının karşılanma düzeyleri ile akademik not ortalamaları arasında istatistiksel olarak anlamlı bir farklılık olduğu görülmektedir. Cinsiyet değişkenine göre yapılan analizler, öğrencilerin yalnızca sevgi ve ait olma ihtiyacının karşılanma düzeylerinin cinsiyete göre farklılaştığını göstermektedir. Cinsiyeti kadın olan öğrencilerin sevgi ve ait olma düzeyleri erkeklere göre daha yüksek bulunmuştur. Kadın öğrencilerin sevme-sevilme, duygusal bağlılık ve aidiyet doyumlarının erkeklere göre daha yüksek düzeyde olduğu görülmektedir. Yaşamlarının büyük bölümünü köy-kasabada geçiren öğrencilerin güç ihtiyacı açısından en yüksek doyuma, ilde geçirenlerin ise en düşük doyuma sahip olduğu belirlenmiştir. Bunun aksine, eğlence ihtiyacında en düşük doyuma yaşamlarının büyük bölümünü köy-kasabada, en yüksek doyuma ise büyükşehirde geçiren öğrencilerin sahip olduğu tespit edilmiştir. Sevgi ve ait olma ihtiyacında, anneleri ilkökul-ortaokul mezunu olan öğrencilerin en yüksek doyuma, üniversite mezunu olanların ise en düşük doyuma sahip oldukları bulunmuştur. Anneleri üniversite mezunu olan öğrencilerin özgürlük ihtiyaç doyumlarının daha

yüksek düzeyde karşılandığı belirlenmiştir. Anne eğitim durumuna benzer şekilde, babaları üniversite mezunu olan öğrencilerin de özgürlük ihtiyacının en yüksek doyuma sahip olduğu bulunmuştur. Özgürlük ihtiyaç doyumunun hem anne hem de baba eğitim durumuna paralel olarak değişmesi, yüksek eğitim düzeyine sahip ebeveynlerin çocuklarını, kendi kararlarını almalarında daha bilinçli yönlendirebileceklerini akla getirmektedir.

*Araştırmanın Sonuçları ve Önerileri:* Bu çalışmada Karadeniz Teknik Üniversitesi Mimarlık Bölümü'nde eğitim alan birinci sınıf öğrencilerinin temel ihtiyaçlarının karşılanma düzeyleri tespit edilmiş ve sosyo-demografik verilerle desteklenerek sunulmuştur. Bulgular, öğrencilerin temel ihtiyaç doyumuna ilişkin algılarının akademik not ortalamalarına, cinsiyetlerine, yaşamlarının büyük çoğunluğunu geçirdikleri yerleşim birimlerine ve anne-baba eğitim durumlarına göre farklılaştığını göstermektedir. Kendine özgü yapısı ile mimarlık eğitimi, öğrencilerin kendilerini geliştirmelerinde, yaratıcı düşüncelerinde ve tasarımlarında özgür davranma imkânı sunan öğrenme ortamlarına sahiptir. Bu açıdan bakıldığında, mimarlık öğrencilerinin özellikle güç ve özgürlük ihtiyaç doyumlarının artırılabilirliği olanaklı gibi görünmektedir. Özellikle uygulamalı derslerde yaşanan interaktif süreçler, öğrencilerin yakından tanınmasını sağladığından, onların ilgi duydukları alanlara yönlendirilmeleri de kolaylaştırılabilir. Öğrencilerin bölüm veya kampüs içinde sosyal, sanatsal ve sportif etkinliklere katılımlarının, eğlence ihtiyaç doyumunun artırılmasına katkı sağlayacağı düşünülmektedir. Bunların yanı sıra informal (kurum dışı) öğrenmeden beslenen mimarlık eğitimi ortamı, öğrencilerin gezi, panel, workshop gibi potansiyellerle hem kişisel hem de mesleki gelişimin desteklenmesinde yol gösterici konumdadır. Ders süresince öğrencilerin birbirleriyle iletişim-etkileşim içinde olmalarını sağlayacak grup çalışmaları, sevgi ve ait olma ve özgürlük ihtiyaç doyumlarının artırılması açısından önemlidir. Bilgi ve fikir alışverişinde bulunma, birlikte karar verme eylemleri öğrencilerin motivasyonlarını artırmada ve kendilerini iyi hissetmelerinde etkili olabilir. Öğrenme sürecinde öğrencilerin fikirlerini özgürce ifade edebilmelerine olanak tanınması, kendilerini başarıya ve yeterli hissetmelerine yakınlaştıracığından, güç temel ihtiyacının doyumuna bağlamında önemlidir. Araştırmanın sınırlılığını, 2018-2019 eğitim-öğretim bahar yarıyılı kapsamındaki Karadeniz Teknik Üniversitesi Mimarlık Bölümü birinci sınıf öğrencileri oluşturmaktadır. Bu nedenle, genellebilir sonuçlara ulaşabilmek için mimarlık eğitiminin farklı kademelerinde temel ihtiyaçların karşılanma düzeylerine ilişkin araştırmaların yapılması önerilebilir.

*Anahtar Kelimeler:* Mimarlık öğrencileri, temel ihtiyaçlar, Üniversite Öğrencileri Temel İhtiyaçlar Ölçeği, akademik başarı, sosyo-demografik değişkenler.