



# The Relationship Between Emotional Intelligence and Burnout Levels Among Architecture Students

Mimarlık Öğrencilerinin Duygusal Zeka ve Tükenmişlik Düzeyleri Arasındaki İlişki

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## ABSTRACT

This study investigated the relationship between emotional intelligence (EI) and burnout among architecture students. The sample of the study included 35 4<sup>th</sup> year students in the Architecture Department. In the study the Emotional Quotient Inventory (EQ-i) of Bar-On was used to measure the emotional intelligence profile, and Maslach Burnout Inventory (MBI) of Maslach was used to measure the state of burnout. The EI level of architecture students was found upper intermediate with a score of 3,63/5. No relationship was found between the EI level of students and their gender, habitation, employment and financial welfare levels. The burnout status of architecture students was defined as intermediate with a score of 2,66/5. No relationship was found between the burnout status of students and their gender, habitation, employment and financial welfare levels. The statistical analysis of the data has revealed a strong statistically significant relationship, in the same direction between the emotional intelligence levels of the students and their burnout status. The study has also revealed a strong and statistically significant relationship between the burnout status and general mood and stress management subscales of emotional intelligence.

**Keywords:** Architecture education; burnout level; emotional intelligence (EI).

## ÖZ

Bu çalışma mimarlık öğrencilerinde duygusal zeka ve tükenmişlik düzeyi arasındaki ilişkiyi araştırmaktadır. Araştırmanın örneklemine Mimarlık Bölümü 4. sınıfta öğrenim görmekte olan 35 öğrenci dahil edilmiştir. Araştırmada duygusal zeka profilini ölçmek amacıyla Bar-On tarafından geliştirilen Duygusal Zeka Envanteri, tükenmişlik düzeyini ölçmek için Maslach tarafından geliştirilen Maslach Tükenmişlik Envanteri kullanılmıştır. Mimarlık öğrencilerinin EI seviyesi 3.63/5 ile orta üstü bulunmuştur. Öğrencilerin EI seviyesi ile cinsiyet, barınma durumu, çalışma durumu ve maddi refah seviyesinin ilişkili olmadığı tespit edilmiştir. Mimarlık öğrencilerinin tükenmişlik düzeyi 2.66/5 ile orta seviyede bulunmuştur. Öğrencilerin tükenmişlik düzeyi ile cinsiyet, barınma durumu, çalışma durumu ve maddi refah seviyesinin ilişkili olmadığı tespit edilmiştir. Verilerin istatistiksel analizi sonucunda mimarlık öğrencilerinin duygusal zeka ve tükenmişlik düzeyleri arasında güçlü, aynı yönlü ve istatistiksel olarak anlamlı bir ilişki olduğu tespit edilmiştir. Ayrıca araştırmada tükenmişlik düzeyinin ile duygusal zekanın alt boyutları olan genel ruh durumu ve stres yönetimi alt boyutları arasında güçlü ve anlamlı bir ilişki olduğu tespit edilmiştir.

**Anahtar sözcükler:** Mimarlık eğitimi; tükenmişlik düzeyi; duygusal zeka (EI).

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Article arrival date: July 12, 2015 - Accepted for publication: November 03, 2016

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## Introduction

In today's world competition, change and development are concepts that can be felt at every field. Rapidly changing conditions, bring about new conditions and also some new concepts. One of the concepts that has gained importance and draws more and more attention is the burn-out syndrome. Freudenberger (1974) was one of the first researchers to use the concept of burnout. He used the term 'burnout' as "exhaustion of energy, power or sources caused by excessive demands; progressing stress process; and the loss of idealism". Later on Maslach and Jackson (1981) described burnout as 'a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who work with people in some capacity'. Maslach, has developed a three scale Burnout Inventory, also known as Maslach Burnout Inventory, based on his research (Francisco et al., 2005:932) The Maslach Burnout Inventory Educators Survey consists of 22 items across three subscales: emotional exhaustion (9 items), depersonalization (5 items), and lack of a sense of personal accomplishment (8 items). The emotional exhaustion subscale (EE) measures feelings of being emotionally overextended and exhausted by one's work. The depersonalization subscale (DEP) assesses an impersonal response toward recipients of one's care or service. The personal accomplishment subscale (PA) measures feelings of competence and success in working with people.

There are numerous academic studies that employed Maslach's Burnout Inventory on various professions such as teachers, academia and students. Schaufeli et al. have developed a student version of the Maslach Burnout Inventory (MBI-SS) (Schaufeli et al. 2002). Many studies have used this scale to examine student's burnout levels (Esteve, 2003; Bresó et al., 2010; Gan and Shang, 2007; Hu and Schaufeli, 2009; Jia et al., 2009; Lee et al. 2010; Lingard, 2007; Morgan, B., 2008; Zhang et al. 2007; Salanova et al., 2009).

Age, gender, civil status, years in an occupation, personality structure and expectation levels are among the individual sources of burnout syndrome. Among these, personality structure can influence burnout both in a positive and negative way. The studies conducted have shown that burnout is a personal phenomenon and includes a negative emotional experience and is based on a non-interruptive emotion (Dolu, 1997). This shows that emotional intelligence concept, which is significant on a people's emotional status and behaviors, is a determinant on burnout syndrome.

Emotional Intelligence (EI), defined as "the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to

guide one's thinking and actions." (Salovey and Mayer, 1990) However, Mayer and Salovey (1997) later revised their definition including a clear description stating: Emotional intelligence involves the ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth. According to Bar-On (2006) emotional intelligence is composed of emotional and social skills that enable a person to understand his or herself or others effectively, to express himself or herself, develop relations with others and to adapt to the environment and cope up (BarOn 2006; Cumming, 2005). Chinowsky and Brown (2004) pointed out that students with inadequately developed EI will lack of leadership, communication skills, creativity.

There are many studies in the literature that examine the correlation between emotional intelligence and academic achievement in different education levels. (Erbil, 2015; Nazidizajia et al., 2014; Birer, 2012; Kavcar, 2011; Afolabi et al., 2009; Newsome et al., 2000; Fallahzadeh, 2011; Fayombo, 2012; Diken, 2007; Yılmaz, 2007; Otacioğlu, 2009; Arli, Altunay and Yalcinkaya, 2011; Kenarli, 2007; Olson, 2008; Bradshaw, 2008; Colston, 2008; Izaguirre, 2008; Holt, 2007; Evenson, 2008; Walker, 2006; Fruh, 2006; Drago, 2004, Parker et al., 2004; Vela, 2003). Some of these studies have found that there is a correlation between emotional intelligence and academic achievement or that emotional intelligence is a determinant of academic achievement. On the other hand, there are also findings that indicating that there is no significant correlation between emotional intelligence and academic achievement. Much like other skills and abilities, emotional intelligence can be learned and refined through numerous interventions such as those acquired through mindfulness practices.

Moreover, there has been some research carried out to investigate relationship between emotional intelligence (EI) and burnout. Vaezi and Fallah's (2011) study investigated the relationship between emotional intelligence (EI) and burnout among 104 Iranian EFL teachers. Findings revealed that there were significant negative correlations between EI and burnout, burnout, teaching experience and age and positive correlations between teachers' EI, teaching experience, and age. They find out there is no significant differences in teachers' EI and burnout with respect to gender.

Pishghadam and Sahebjam's (2012) study investigated relationship between teacher's personality types, emotional intelligence and burnout and to predict the burnout levels of 147 teachers. They find out there is significant re-

relationship between personality types and emotional intelligence and the scales of burnout.

Celik and Oral's (2013) study show that architectural students have low burnout levels in general, and levels of emotional exhaustion, cynicism and academic inefficacy are all strongly related with each other.

Görgens-Ekermans and Brand (2012) examined emotional intelligence as a moderator of stress and burnout. Using a sample of 122 nurses in South Africa, the authors measured emotional intelligence using the Swinburne University Emotional Intelligence Test and the Maslach Burnout Inventory- Human Service Survey to measure burnout among participants. They found a consistent inverse relationship between emotional control and management as dimensions of emotional intelligence and stress and burnout.

Kaur, Sambasivan, and Kumar's (2013) study show a statistically significant relationship was found among emotional intelligence and stress and burnout. They concluded that developing emotional intelligence may help diminish burnout when chronic stress is experienced.

Weng et al. (2011) investigated the relationships between emotional intelligence and doctor burnout, job satisfaction, and patient satisfaction. Their sample consisted of 110 internists and 2872 out-patients. Results show a statistically significant relationship among self-rated emotional intelligence, burnout, and job satisfaction

Alavinia and Ahmadzadeh (2012) investigated the relationship between emotional intelligence and burnout among teachers. A sample of 75 high school teachers in West Azerbaijan completed the Maslach Burnout Inventory- Educators Survey and the Bar-On Emotional Quotient Inventory (EQ-i). They found a negative relationship between emotional intelligence and burnout. In addition, age and teaching experience were positively correlated with emotional intelligence and reversely correlated with teacher burnout.

Arsenault (2015) investigated the relationship between emotional intelligence (EI) and burnout in a sample of emergency responders. The results demonstrated that no significant, predictive relationship exists between self-perception, self-expression and the burnout subscales of emotional exhaustion and depersonalization.

Budnik's (2003) study analyzed the impact of emotional intelligence and burnout on 154 staff nurses. The author found statistically significant relationships between emotional exhaustion and depersonalization on the career intent of the respondents. The burnout subscales were also statistically significant in predicting emotional intelligence among the sample group of staff nurses. In addition, the influence of clinical speciality also influenced the emotion-

al exhaustion and personal accomplishment scores in the study.

Vito (2009) investigated the relationship Between Emotional Intelligence (EI) and teacher burnout in a sample of 64 secondary high school teachers in a suburban, public school system. No significant relationship was found between Emotional Exhaustion, Depersonalization, and Emotional Intelligence total score. However, a significant difference was found between the Emotional Intelligence total score and one aspect of burnout, Personal Accomplishment.

Thornqvist's (2011) study was to determine if there was a relationship between emotional intelligence and teacher burnout by assessing a sample of Florida teachers.

Literature shows that EI is one of the key factors that affect burnout levels of different professional groups. As it can be seen from the literature analyses above, although there are many studies examining relationship between emotional intelligence and burnout, the limited number of research has been undertaken related with architectural students. Thus, the aim of the current research has been to determine both the burnout levels and EI of architectural students and the relationship between these two factors. Maslach Burnout Inventory Student Survey and BarOn EI were used in order to achieve this.

## Methodology

This study focuses on the relationship between emotional intelligence and student burnout in architectural students. Although there are many studies examining the correlation between emotional intelligence and burnout, the limited number of studies taking into consideration architecture education and the limited information about this is attention grabbing. Therefore, a research has been designed to show the correlation between burnout and the concept of emotional intelligence.

The following were initially examined:

- The emotional intelligence and burnout levels of students;
- Correlation between burnout and emotional intelligence; and
- Correlation between subscales of burnout and subscales of emotional intelligence.

An another important limitation of this study is due to the limited number of research on architecture students on the subject and no research in the literature related to the reflection of emotional intelligence and burn out on architectural education. It is believed that the results obtained in this preliminary study will contribute to create a basis for the discussions related to this area, and to contribute to future research on the subject.

The population of this study is sixty 4<sup>th</sup> year students, who were attending Uludag University Faculty of Architecture, Department of Architecture during the 2014-2015 academic years. Using the convenience sampling method, students that were being supervised were included in this study. In this regard the sample of this study is composed of 35 students in Uludag University Architecture Faculty Architecture Department, who were enrolled to the school during the 2010-2011 education years and were to be graduated in the 2014-2015 education year.

In the study the Emotional Quotient Inventory (EQ-i) of Bar-On, which has five scales and fifteen subscales was used to measure the emotional intelligence profile, and Maslach Burnout Inventory (MBI) of Maslach, which has three subscales was used to measure the state of burnout.

To measure the state of burnout of students, Maslach Burnout Inventory, which is the most used method in this field and was developed by Maslach and Jackson (1986) and was adapted to Turkish by Ergin (1993), was used. The Inventory, which is composed of a total of 22 articles and three different scales, was evaluated by five point Likert scale. The expressions in the personal accomplishment (PA) subscale of the inventory are positive expressions in contrast to the other expressions and define a person's negative self-evaluation and personal failure. For this reason, in contrast to the other two subscales the scoring is inversed (Ergin, 1993: 152). Therefore, high scores received from emotional exhaustion (EE), depersonalization/cynicism (DE) and personal accomplishment (PA) sub-dimensions indicate a high level of burnout. In Table 1 the sub-dimensions and the items that make up those sub-dimensions of MBI can be observed.

In this study the Bar-On Emotional Intelligence Inventory was used, which was developed by Bar-On (1997) and adapted to Turkish by Acar (2001), and used in many studies until today and regarded as satisfactory in terms of its dependability and validity levels [4,10,11,14,15,27,33,35,36,37]. Bar-On's Emotional Intelligence Inventory is composed of 88 articles under 5 scales and 15 subscales. Table 2 shows the scales, subscales of Bar-On's Emotional Intelligence Model. The statements in the scales of Bar-On's Emotional Intelligence Inventory were evaluated with the five levels Likert scale. In the five

item scale the most positive variables are coded with five and the most negative variables are coded with one.

A reliability analysis was applied to the Maslach Burnout Inventory used in this study and the Cronbach's Alpha factor was calculated as 0.901. The factor calculated for subscales are 0.852 for emotional exhaustion (EE), 0.711 for depersonalization/cynicism (DE), and 0.749 for personal accomplishment (PA). Therefore, it is possible to say that the scale on its own and also the subscales are very reliable.

The Cronbach's Alpha factor based on the reliability analysis carried out on Bar-On emotional intelligence inventory as a whole was 0.919. The Cronbach Alpha values calculated for subscales are respectively 0.809 for General Mood (GM), 0.606 for stress management (SM), 0.708 for Adaptability (AD), 0.740 for Interpersonal skills (IRP), and 0.854 for intrapersonal skills (IRAP). These factors indicate that the scale as a whole and its subscales are very reliable.

### Results and Discussion

This study first worked to determine the burnout and emotional intelligence levels of students. With this aim the descriptive statistics related to MBI, EQ and their subscales were prepared. In the next phase emotional intelligence levels, burnout state and their subscales were examined to see if there were any connections. In this study analysis such as reliability analysis, correlation analysis, independent-samples t test, one-way ANOVA was used.

Of the participants in this study 74% were females, 26% were males, 37% worked in full or part time jobs, 63% were unemployed, 46% received a scholarship and 54% did not receive scholarship. The descriptive statistics values of students on their MBI, EQ and subscales are given in Table 3.

When we examine Table 3 we can see that the sample's EQ point average is 3.63 and the MBI point average is 2.66. Therefore, it can be said that the students have a high level of EQ and a medium level burnout. When the scores are taken into consideration from the viewpoint of subscales it can be seen that the IRP, IRAP and GM scores of students are high for the EQ. When the MBI scores are evaluated based on the subscales, it has been seen the students were at middle levels in terms of emotional exhaustion and personal achievement, and at low levels in terms of depersonalization/cynicism.

Independent-samples t test and one-way ANOVA analysis were used to evaluate if the MBI and subscale scores of the students in the scope of this study differed according to gender, employment and unemployment, scholarship and residences. In order to determine if there are statistically significant differences between students' MBI and subscale scores and their gender, employment, scholar-

**Table 1.** Scales of MBI and items related to the subscales

Scales	Item number
Emotional exhaustion (EE)	1, 2, 3, 6, 8, 13, 14, 16, 20
Depersonalization (DE)	5, 10, 11, 15, 22
Personel accomplishment (PA)	4, 7, 9, 12, 17, 18, 19, 21

**Table 2.** Scales of EQ and items related to the scales

Scales	Subscales	Item number
General mood (GM)	Optimism (Opt)	5, 31, 76, 78, 85
	Happiness (Hap)	37, 40, 54, 65, 72, 74, 83
Stress management (SM)	Impulse Control (Ic)	11, 29, 36, 41, 66, 70
	Stress Tolerance (St)	3, 6, 60, 63, 68, 75, 80
Adaptability (AD)	Flexibility (Fle)	18, 50, 58, 61, 71
	Reality-Testing (Rt)	4, 12, 52, 56, 82
	Problem-Solving (Ps)	1, 23, 33, 51, 87
Interpersonal (IRP)	Social Responsibility (Sr)	34, 43, 45, 48, 59, 79
	Interpersonal Relationship (Ir)	16, 32, 42, 46, 57, 62, 67
	Empathy (Emp)	25, 30, 49, 77, 81
Intrapersonal (IRAP)	Independence (Ind)	22, 24, 47, 64, 73
	Self-Actualization (Sa)	15, 17, 19, 21, 28, 35
	Self-Regard (S-r)	10, 14, 26, 44, 55, 69
	Assertiveness (Ass)	7, 9, 20, 27, 39, 86
	Emotional Self-Awareness (Esa)	2, 8, 13, 38, 53, 84

**Table 3.** Descriptive statistics for the variables

	Mean	Std. Dev.	Minimum	Maximum	Range
EQ	3.63	0.35	2.72	4.36	1.65
GM	3.82	0.57	2.17	4.67	2.50
SM	3.05	0.44	2.23	3.77	1.54
AD	3.46	0.45	2.47	4.27	1.80
IRP	3.95	0.39	3.28	4.61	1.33
IRAP	3.65	0.44	2.86	4.41	1.55
MBI	2.66	0.59	1.86	4.00	2.14
EE	3.03	0.76	1.56	4.67	3.11
DE	2.17	0.73	1.20	4.00	2.80
PA	2.53	0.54	1.75	4.13	2.38

ship, independent-samples t test was used and the results obtained are presented in Table 4.

When the results at Table 4 are examined no statistically significant relationship between burnout (MBI), emotional exhaustion (EE), depersonalization/cynicism (DE) and personal accomplishment (PA) scores and gender, employment, scholarship was found. These findings indicate that the burnout levels of students in the scope of this study did not differ significantly based on the gender, employment and scholarship conditions. The One-Way ANOVA findings, which was used to determine if the MBI and subscale scores of students in the study differed, based on their residences can be seen in Table 5.

The findings in Table 5 suggest that the MBI and subscale scores of students did not differ significantly based on their residences. In other words, the burnout levels of students did not change based on their residences.

In the next phase of the study the relationship of EQ and its main scales with MBI and its subscales was examined. The relationship was examined with a correlation analysis and the results are presented in Table 6.

It can be seen in Table 6 that there are statistically significant and negative relationships between MBI and EQ and all subscales of EQ. The strong factors between MBI and EQ, GM and SM are especially remarkable. Statistically significant correlation was also identified between the subscales of MBI EE and DE with EQ, GM, SM, IRP and IRAP. Also statistically significant and negative correlation between the PA subscale of MBI with EQ and all subscales of EQ were identified. Accordingly, it can be suggested that when the scores of students for general mood, stress management, interpersonal skills, and intrapersonal skills increase the levels of emotional exhaustion and depersonalization/cynicism will decrease. Similarly, it can be sug-

**Table 4.** Relationship of MBI and subscale with gender, employment and scholarship status

Gender	Levene's test for equality of variances				t-test for equality of means			
	F	Sig.	t	df	Sig. (2-tailed)	Mean difference	Std. error difference	
MBI	Eq. var. assumed	3.616	0.066	0.740	33	0.465	0.16900	0.22851
	Eq. var. not assumed			0.608	10.571	0.556	0.16900	0.27800
EE	Eq. var. assumed	2.661	0.112	1.432	33	0.161	0.41263	0.2881
	Eq. var. not assumed			1.248	11.339	0.237	0.41263	0.33064
DE	Eq. var. assumed	1.008	0.322	0.391	33	0.698	0.11111	0.28442
	Eq. var. not assumed			0.345	11.545	0.736	0.11111	0.32194
PA	Eq. var. assumed	2.387	0.131	-0.325	33	0.747	-0.06891	0.21200
	Eq. var. not assumed			-0.256	10.104	0.802	-0.06891	0.26902
<b>Employment status</b>								
MBI	Eq. var. assumed	3.674	0.063	-0.336	33	0.738	-0.06993	0.20804
	Eq. var. not assumed			-0.302	18.291	0.765	-0.06993	0.23100
EE	Eq. var. assumed	10.422	0.003	-0.847	33	0.387	-0.23232	0.26551
	Eq. var. not assumed			-0.754	16.137	0.461	-0.23232	0.30810
DE	Eq. var. assumed	4.388	0.044	0.655	33	0.516	0.16783	0.25621
	Eq. var. not assumed			0.584	17.841	0.565	0.16783	0.28690
PA	Eq. var. assumed	0.121	0.730	-0.186	33	0.853	-0.03583	0.19197
	Eq. var. not assumed			-0.195	28.759	0.846	-0.03583	0.18378
<b>Scholarship status</b>								
MBI	Eq. var. assumed	0.096	0.758	0.185	33	0.854	0.03738	0.20203
	Eq. var. not assumed			0.183	30.462	0.855	0.03738	0.20405
EE	Eq. var. assumed	0.176	0.677	-0.444	33	0.659	-0.11549	0.25972
	Eq. var. not assumed			-0.448	32.733	0.657	-0.11549	0.25774
DE	Eq. var. assumed	1.236	0.274	0.118	33	0.906	0.0296	0.25006
	Eq. var. not assumed			0.115	27.493	0.908	0.0296	0.25627
PA	Eq. var. assumed	0.028	0.866	1.173	33	0.248	0.21422	0.18252
	Eq. var. not assumed			1.156	29.596	0.256	0.21422	0.18520

**Table 5.** Results of One-Way ANOVA

		Test of homogeneity of variances				ANOVA		
		Levene statistic	Sig.	Sum of squares	df	Mean square	F	Sig.
MBI	Between groups	0.788	0.51	2.101	4	0.525	1.640	0.189
	Within groups			9.610	30	0.32		
	Total			11.711	34			
EE	Between groups	0.527	0.667	4.044	4	1.011	1.968	0.124
	Within groups			15.406	30	0.513		
	Total			19.451	34			
DE	Between groups	0.241	0.867	1.579	4	0.394	1	0.582
	Within groups			16.351	30	0.545		
	Total			17.931	34			
PA	Between groups	1.687	0.191	1.374	4	0.343	1.202	0.330
	Within groups			8.573	30	0.285		
	Total			9.948	34			

gested that when the scores for emotional intelligence and all subscales of emotional intelligence of students increase

their personal accomplishment scores will decrease. When the fact that personal accomplishment score defines the

**Table 6.** Correlation of EQ and Main Scales with MBI

	EQ	GM	SM	AD	IRP	IRAP	MBI	EE	DE	PE
EQ	1.000									
GM	0.878**	1.000								
SM	0.714**	0.730**	1.000							
AD	0.673**	0.525**	0.302***	1.000						
IRP	0.694**	0.575**	0.471**	0.292***	1.000					
IRAP	0.861**	0.647**	0.452**	0.505**	0.436**	1.000				
MBI	-0.740**	-0.762**	-0.711**	-0.347*	-0.481**	-0.598**	1.000			
EE	-0.604**	-0.633**	-0.620**	-0.270	-0.372*	-0.485**	0.936**	1.000		
DE	-0.576**	-0.541**	-0.576**	-0.257	-0.333**	-0.508**	0.856**	0.753**	1.000	
PA	-0.775**	-0.823**	-0.662**	-0.396*	-0.570**	-0.595**	0.794**	0.587**	0.530**	1.000

\*\*Indicates p<0.01 (2-tailed).

\*Indicates p<0.05 (2-tailed).

negative self-evaluation of a person and the personal failure, it can be suggested that higher emotional intelligence levels of students mean less negative self-evaluation and less feeling failure. In the next phase of the study the correlation of the two subscales of emotional intelligence, namely GM and SM subscales with MBI and its subscales were examined and the results are presented in Table 7.

When Table 7 is examined it can be observed that there are statistically significant and negative correlations between Optimism (Opt), Happiness (Hap), Impulse Control (Ic), and Stress Tolerance (St) subscales of EQ with MBI and all subscales of MBI. When the Optimism, Happiness, Impulse Control, and Stress Tolerance scores of students increase their burnout, emotional exhaustion, depersonalization, and personal accomplishment scores decrease. Findings on the correlation of AD and IRP, which are the 3<sup>rd</sup> and 4<sup>th</sup> subscales of emotional intelligence, with MBI and its subscales can be seen at Table 8.

According to Table 8 there is a significant and negative correlation between Flexibility (Fle), Problem-Solving (Ps),

Social Responsibility (Sr), Interpersonal Relationship (Ir), and Empathy (Emp) with MBI. While no significant correlation was found between MBI's Emotional Exhaustion (EE), and Depersonalization (DE) subscales with AD and IRP subscales; significant and negative correlations between Personnel Accomplishment (PA) subscale with Flexibility (Fle), Social Responsibility (Sr), Interpersonal Relationship (Ir), and Empathy (Emp) subscales were found. According to these findings, when students' Flexibility, Problem-Solving, Social Responsibility, Interpersonal Relationship, and Empathy scores increase their burnout levels will decrease. Similarly, when Flexibility, Social Responsibility, Interpersonal Relationship, and Empathy scores increase Personal Accomplishment scores will decrease. The factors calculated related to the correlation between IRAP, last subscale of emotional intelligence, and MBI and its subscales can be seen in Table 9.

Table 9 shows that there are negative and significant correlations between Self-Actualization (Sa), Self-Regard (S-r), Assertiveness (Ass), and Emotional Self-Awareness

**Table 7.** Results of One-Way ANOVA

	Opt	Hap	Ic	St	MBI	EE	DE	PE
Opt	1.000							
Hap	0.491**	1.000						
Ic	0.225	0.539**	1.000					
St	0.581**	0.707**	0.370*	1.000				
MBI	-0.671**	-0.648**	-0.496**	-0.679**	1.000			
EE	-0.607**	-0.496**	-0.400*	-0.625**	0.936**	1.000		
DE	-0.422*	-0.505**	-0.444**	-0.509**	0.856**	0.753**	1.000	
PA	-0.692**	-0.728**	-0.479**	-0.617**	0.794**	0.587**	0.530**	1.000

\*\*Indicates p<0.01 (2-tailed).

\*Indicates p<0.05 (2-tailed).

**Table 8.** Relationship of AD and IRP Subscales with MBI

	Flc	Rt	Ps	Sr	lr	Emp	MBI	EE	DE	PE
Flc	1.000									
Rt	0.244	1.000								
Ps	0.292	0.413*	1.000							
Sr	0.019	0.322	0.257	1.000						
lr	0.422*	0.081	0.205	0.365*	1.000					
Emp	0.053	-0.064	0.190	0.308	0.626**	1.000				
MBI	-0.336*	-0.156	-0.339*	-0.385*	-0.381*	-0.368*	1.000			
EE	-0.267	-0.075	-0.320	-0.280	-0.326	-0.266	0.936**	1.000		
DE	-0.12	-0.203	-0.236	-0.330	-0.178	-0.291	0.856**	0.753**	1.000	
PA	-0.483**	-0.177	-0.311	-0.433**	-0.476**	-0.434**	0.794**	0.587**	0.530**	1.000

\*\*Indicates p<0.01 (2-tailed).  
\*Indicates p<0.05 (2-tailed).

**Table 9.** IRAP Subscale's correlation with MBI

	Ind	Sa	S-r	Ass	Esa	MBI	EE	DE	PE
Ind	1.000								
Sa	0.463**	1.000							
S-r	0.277	0.604**	1.000						
Ass	0.412*	0.469**	0.484**	1.000					
Esa	0.208	0.267	0.417*	0.365*	1.000				
MBI	-0.157	-0.444**	-0.801**	-0.337*	-0.356*	1.000			
EE	-0.143	-0.328	-0.655**	-0.298	-0.259	0.936**	1.000		
DE	-0.162	-0.373*	-0.696**	-0.274	-0.270	0.856**	0.753**	1.000	
PA	-0.107	-0.496**	-0.774**	-0.307	-0.428*	0.794**	0.587**	0.530**	1.000

\*\*Indicates p<0.01 (2-tailed).  
\*Indicates p<0.05 (2-tailed).

(Esa) with MBI. Negative and significant correlations have been observed between Emotional Exhaustion (EE) subscale of MBI with Self-Regard (S-r); Depersonalization (DE) subscale with Self-Actualization (Sa) and Self-Regard (S-r); Personal Accomplishment (PA) subscale with Self-Actualization (Sa), Self-Regard (S-r) and Emotional Self-Awareness (Esa). It has been understood that when the Self-Actualization, Self-Regard, Assertiveness and Emotional Self-Awareness scores of students increase their MBI levels would decrease, and when their Self-Regard grades increase their Emotional Exhaustion levels would decrease, and when their Self-Actualization and Self-Regard scores increase their Depersonalization level would decrease; and when their Self-Actualization, Self-Regard and Emotional Self-Awareness scores increase their Personal Accomplishment score would decrease. Especially the strong factors calculated between Self-Regard and MBI are striking as they show the strength of the correlation between these two variables.

### Conclusions

Architecture training is considered as a difficult process because of long studying hours and the effort that is put into the education. This study has started from a point where it was believed that this situation increased the burnout risk of architecture students. The research results have shown that the burnout status of architecture students was at medium level. In design studios, which are a part of the architecture education process, a new project subject is given to the students every semester and therefore every semester different student groups, subjects and supervisors are involved in the education process, which breaks the monotony, creates a dynamic environment, and provides an environment where students and supervisors are able to communicate; this position and also the close connection of architecture procession with society and culture can be accepted among the reasons that stop burnout levels from further increasing. In this study the impact of other factors than those stated above, such as

gender, age, residence, economic welfare levels, on the students' emotional intelligence levels were examined. The results obtained have shown that there isn't a correlation between burnout and gender, age, residence, and economic welfare levels, however there is a significant relationship at the same direction between the emotional intelligence levels of students and their burnout levels.

The research results have shown that the burnout status of architecture students was at medium level whereas their emotional intelligence level was high. Based on these results it can be suggested that the high level of emotional intelligence of architecture students can be an obstacle for burnout of students. On the other hand, architecture design studios are the basis of architecture education. Every design and the process followed for the design is unique for every person. The psychological structure of students, their socioeconomic conditions, their ages, gender, philosophy of life, personalities all have an impact in shaping their designs. Therefore, it cannot be expected for a student to act independently from these personal traits and develop a design that is insensitive to these traits. From this point of view, it is possible to say that emotional intelligence that is related to the personal traits of students is influential on the architectural projects, which are the output of architecture education. Therefore, emotional intelligence is influential at one hand on the design process and the design product of students and at the other hand their burnout status.

Another important finding of the study is the strong correlation between general mood and stress management subscales of emotional intelligence with the level of burnout. When the optimism, happiness, impulse control and stress tolerance scores of architecture students increase their burnout, emotional exhaustion, depersonalization, and personal accomplishment scores decrease. Especially the significant, negative and strong factor calculated for the correlation between personal accomplishment and happiness indicate that when the level of happiness increases the sentiment of lack of personal accomplishment will be decreased. Similarly, it has been observed that when Flexibility, Problem-Solving, Social Responsibility, Interpersonal Relationship, Empathy, Self-Actualization, Self-Regard, Assertiveness, and Emotional Self-Awareness scores of students increased their burnout levels decreased. The strong factors calculated between Self-Regard with MBI and PA are remarkable and it means when Self-Regard levels increase the burnout and lack of personal achievement feelings will decrease.

As a result, it has been seen that the emotional intelligence levels of students are high and their burnout levels are medium, and if emotional intelligence levels dropped students may be exhausted much sooner. Therefore, ef-

forts must be made to improve emotional intelligence in architecture education. This can contribute to improving the education process and also the processes and designs after graduation, and also to make students, who are already burned out at medium levels, stronger against hardships and stressful working conditions in their future professional lives and make them ready for their professional lives.

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