

## PAPER DETAILS

TITLE: The Relationship between the English Self-Efficacy Perception and English Knowledge Level of Dentistry Students

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## Özgün Araştırma Makalesi

**Diş Hekimliği Öğrencilerinin İngilizce Öz Yeterlik Algısı ve İngilizce Bilgi Düzeyi İlişkisi***The Relationship between the English Self-Efficacy Perception and English Knowledge Level of Dentistry Students*Didem Özkal Eminoğlu<sup>1</sup> , Tuğba Aydın<sup>1</sup> , Didar Betül Doğan<sup>2</sup> **ÖZET**

**Amaç:** Bu araştırmada, diş hekimliği fakültesi öğrencilerinin İngilizce öz yeterlik inançlarının ve İngilizce bilgi düzeylerinin belirlenmesi amaçlanmaktadır.

**Gereç ve Yöntem:** Araştırma Atatürk Üniversitesi Diş Hekimliği Fakültesi'nde eğitim gören 3., 4. ve 5. sınıf öğrencilerinin gönüllü katılımları ile gerçekleştirilmiştir. Araştırmada veri toplamak amacıyla katılımcılara; demografik bilgilerini, İngilizce hazırlık sınıfı okuma durumlarını, hangi liseden mezun olduklarını ve ebeveynlerinin İngilizce bilme durumunu sorgulayan bir bilgi formu verilmiştir. Öğrencilerin İngilizce öz yeterlik algısını belirlemek amacıyla, "İngilizce Öz Yeterlik İnancı Ölçeği" kullanılmıştır. Öğrencilere, İngilizce bilgi düzeylerini belirlemek amacıyla oluşturulan 23 soruluk bir test sunulmuştur. Her soruda 5 seçenek bulunmaktadır ve bu seçeneklerden yalnızca 1 tanesi doğrudur. Verilen doğru yanıt sayısının ortalaması hesaplanmıştır. İstatistiksel analizler için IBM SPSS 25.0. programı kullanılmıştır. Çalışmanın istatistiksel analizlerinde  $p < 0.05$  düzeyi anlamlı olarak kabul edilmiştir.

**Bulgular:** Araştırmaya 223 öğrenci katılmıştır. Öğrencilerin; İngilizce öz yeterlik inançlarının düşük düzeyde olduğu belirlenmiştir. Öğrencilerin öz yeterlik inancının, en yüksek seviyede okuma ve dinleme becerisinde olduğu; ardından konuşma ve yazma alanında öz yeterlik inancının geldiği tespit edilmiştir. Öğrencilerin İngilizce testine verdikleri doğru cevap sayısının ortalaması  $8.79 \pm 0.304$ 'tur. En düşük değer "0", en yüksek değer ise "23" doğru cevap olarak tespit edilmiştir.

**Sonuç:** İngilizce öz yeterlik inancı yükseldikçe, testteki İngilizce sorularına verilen doğru cevap sayısı da artmaktadır. İngilizce öz yeterlik inancı ile İngilizce bilgi düzeyi arasında pozitif korelasyon bulunmaktadır.

**Anahtar Sözcükler:** Diş hekimliği; İngilizce; Öz yeterlik

**ABSTRACT**

**Aim:** In this study, it was aimed to determine the English self-efficacy beliefs and English proficiency levels of dentistry faculty students.

**Material and Method:** The research was carried out with 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> year students of Faculty of Dentistry at Atatürk University. An information form questioning the demographic information of individuals, their attendance at English preparatory class, the high school they graduated from, and their parents' proficiency level of English was used to collect the data of study. The "English Self-Efficacy Belief Scale" was used for assessment of the participants' perceptions of English self-efficacy. A 23-question test was presented to the students to determine their level of English proficiency. Each question had 5 choices and only 1 of these choices was the correct answer. The mean of the number of correct answers given was calculated using IBM SPSS 25.0 program. In the statistical analysis of the study, the  $p < 0.05$  level was significant.

**Results:** 223 students participated in the research. It was determined that the students' English self-efficacy beliefs were at a low level. Students have the highest self-efficacy belief in reading and listening skills, followed by speaking and writing skills, respectively. The average of the correct answers in the English test is  $8.79 \pm 0.304$ . The lowest number was determined as "0" correct answers and the highest number was determined as "23" correct answers.

**Conclusion:** As the belief in English self-efficacy increases, the number of correct answers to the English questions in the test also increases. There is a positive correlation between English self-efficacy belief and English proficiency level.

**Keywords:** Dentistry; English; Self-efficacy

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## INTRODUCTION

Self-efficacy can be defined as the “belief in one’s abilities to organize and carry out the actions necessary to produce certain achievements”. It plays an important role in a person’s actions by affecting his/her behaviors and other emotional and motivational beliefs.<sup>1</sup> Since the 1990s, the debates about individuals’ perceptions of their personal abilities and past experiences as important elements of motivation have come forward in the literature, and self-efficacy, which is defined as a cognitive element of motivation, has begun to attract considerable attention among researchers.<sup>2</sup>

The concept of self-efficacy has been defined in various ways. For example, it has been defined as the judgment of one’s own capacity to perform successfully in a particular subject. While Pajares<sup>3</sup> defined self-efficacy as the specific evaluation of skills for a given topic, he also described it as the ability to achieve a certain activity, as well as self-perception and belief in one’s capacity. In short, self-efficacy is a person’s belief that he/she has the skills necessary to complete a given task.<sup>4</sup>

Belief in self-efficacy is a subject-specific idea that cannot be generalized to other fields. In other words, a person’s self-efficacy belief that is high in one area may be low in another. Self-efficacy belief indirectly affects human life. It is effective in situations such as the motivation of the person to work, the effort he/she puts for success, and the time he/she spends on a given task.<sup>5</sup>

People with high self-efficacy beliefs do not give up easily in the face of difficulties. Even if their self-efficacy belief is shaken, these people can manage to believe in themselves once again. People with low self-efficacy, on the other hand, surrender easily and do not show effort when faced with an obstacle in reaching their goals.<sup>6</sup>

Mirza<sup>7</sup> suggests that self-efficacy is a reliable outcome measure for evaluating teaching strategies in dental practices for undergraduate level of students of studying at the faculty of dentistry. He evaluated that positive experiences make an increase in self-efficacy; but self-efficacy also decreases due to negative experiences, especially when there has been lack of positive experience. The results of

the same study showed that moderate self-efficacy level among the undergraduate level of students of studying at the faculty of dentistry were similar to the Turkish and Netherland populations in previous studies.

The study which evaluates the relationship amongst clinical reasoning, self-efficacy, and academic achievement in undergraduate dentistry education highlighted the importance of self-efficacy, and it was found to be a predictor of higher academic achievement in students.<sup>8</sup>

According to the motivation model developed by Tremblay and Gardner<sup>9</sup>, one’s self-efficacy judgment does not directly affect success and self-efficacy perception is indirectly related to success through motivational behaviors. According to social cognitive theory, people’s beliefs and opinions are likely to influence their behavior and its consequences. Self-efficacy plays a facilitating and mediating role in human behavior. Self-efficacy affects the choices people make, the amount of effort they put in, and the types of emotions they experience. Meta-analysis studies have confirmed that, in addition to behaviors and emotions, self-efficacy is important for academic success in the language proficiency of students<sup>10-11</sup>.

Learning a second language is a long and complex process. The learner of a foreign language has to go beyond the borders of the mother tongue and develop a new culture and a new way of thinking. Foreign language learning includes all the activities of knowing the structure and system of the language and the way this system is used to make sense. It also requires employing this information effectively when using a language other than the mother tongue. It can be claimed that there are several external factors that affect foreign language learning, such as the curriculum, teaching methods and techniques, socio-cultural factors, and the mother tongue. However, recent studies on foreign language learning seem to focus more on individual differences rather than these variables.<sup>12</sup>

The importance of English, which is accepted as a global communication language among foreign languages, has increased.<sup>13</sup> In the studies conducted, the following are listed among the reasons of students’ lacking the expected level of English proficiency: (i) Teaching English with a rote

learning approach based on grammar as a course instead of teaching English as a communication tool to students in Turkey, (ii) the inability of students to learn to communicate as a result of the predominance of grammar-based in-class applications, (iii) the inability to use the classroom order in a structure that encourages in-class communication, (iv) the inadequacy of textbooks and curricula in taking into account student needs, (v) problems in the inspection system, and (vi) repeating the same syllabus despite progress in grade level.<sup>14</sup>

English education, which used to be offered at the second grade level of primary schools in Turkey, is now offered as early as pre-school education. This intensive program continues until the end of undergraduate education, but has not satisfied educators, parents and even learners for years. This phenomenon of failure in foreign language teaching is a subject that researchers continue to discuss. Foreign language self-efficacy, which is among learner characteristics, is also covered in these debates.<sup>15</sup>

The aim of this study is to determine the English self-efficacy beliefs and English proficiency levels of students of faculty of dentistry. The sub-objectives determined for this purpose are as follows:

- 1- What are the students' views on their English reading, writing, listening and speaking self-efficacy belief levels?
- 2- Do the opinions of students on their English reading, writing, listening and speaking self-efficacy belief levels change according to the variables of year, gender, school type, attendance at preparatory class, and English proficiency level of parents?
- 3- What is the English proficiency level of the students?
- 4- Is there a relationship between the correct answers given by the students to the questions to measure their English proficiency level and the variables of year, gender, school type, attendance at preparatory class, and English proficiency of parents?

The results of the present study may be beneficial in developing undergraduate language programs to improve the self-efficacy and English skills of undergraduate level of dentistry students.

## MATERIAL AND METHOD

### Research Model

The study was designed according to the descriptive survey model in line with the quantitative research method. Survey model is a research model that attempts to describe a past or present situation as it exists without any effort to influence.<sup>16</sup> In the study, current English self-efficacy beliefs and English proficiency levels of students have not been exposed to any intervention, and effort has been paid to describe them as they are.

### Study Group

The population of the study consists of 223 students at 3<sup>rd</sup> (n=68), 4<sup>th</sup> (n=102) and 5<sup>th</sup> years (n=53) of Faculty of Dentistry at Atatürk University. The study was conducted in March 2022.

### Data Collection Tool

1. In order to collect the data of the study, a personal information form questioning the demographic information of the individuals, their English preparatory class attendance status, the high school they graduated from and the English proficiency level of their parents were provided.

2. In order to determine English self-efficacy perception, the "English Self-Efficacy Perception Scale" developed by Hancı-Yanar and Bümen<sup>17</sup> was employed. In the analyses regarding the validity and reliability of the scale, Cronbach's Alpha reliability coefficient was calculated as 0.97, and the total variance explanation rate of the sections was calculated as 61.41%. The scale consists of 4 sections, namely reading, writing, listening and speaking. There are 34 items in total in the scale, with 8 items in the reading section, 10 items in the writing section, 10 items in the listening section, and 6 items in the speaking section. The scoring of each item in the scale developed in a five-point Likert type is as follows: "(1) Does not fit at all", "(2) Fits very little", "(3) Fits moderately", "(4) Fits considerably" and "(5) Fits totally". In the scale where there is no reverse scoring item, high scores represent high self-efficacy beliefs.

In the interpretation of arithmetic averages, the average values between 1.00 and 5.00 are determined as follows:

Fits totally: 4.21-5.00  
 Fits considerably: 3.41-4.20  
 Fits moderately: 2.61-3.40  
 Fits very little: 1.81-2.60  
 Does not fit at all: 1.00-1.80

Self-efficacy perception is determined according to the following values:

Very low (1) 1.00 - 1.80  
 Low (2) 1.81 - 2.60  
 Medium (3) 2.61 - 3.40  
 High (4) 3.41 - 4.20  
 Very high (5) 4.21 - 5.00

3. An English test was prepared in order to determine the English proficiency level of the students. The distribution of questions in the test is as follows:

Vocabulary: 2 Questions  
 Grammar: 3 Questions  
 Cloze Test: 5 Questions  
 Sentence Completion: 3 Questions  
 Translation: 4 Questions  
 Paragraph Completion: 2 Questions  
 Integrity of Meaning: 2 Questions  
 Reading Text: 2 Questions

### Data Collection and Analysis

The data of the study were collected after obtaining the necessary official permission of Atatürk University Dentistry Faculty Ethics Committee (decision number: 28; decision date: 21.02.2022).

The average number of correct and wrong answers in 23 questions was calculated. In order to determine whether the total and sub-section scores of self-efficacy differ in terms of gender variable, t-test belonging to independent groups was applied. In addition, a one-way analysis of variance was conducted to determine the difference between the scores for the entire self-efficacy section and its sub-sections in terms of years students studying, graduated school, attendance at preparatory class, and English proficiency levels of parents. Possible differences between mean scores were determined by the Tukey multiple comparison test. In addition, correlation analysis was performed to determine the existence of any relationship between the entire self-efficacy scale, its sub-sections and the number of correct answers. The level of significance was

accepted as  $p < 0.05$  in the statistical analyses used in the study.

## RESULTS

At the time of the study, 68 students were enrolled in 3<sup>rd</sup> year groups, 102 students were enrolled in 4<sup>th</sup> year groups, and 53 students were enrolled in 5<sup>th</sup> year groups at the Faculty of Dentistry of Atatürk University. A total of 223 students volunteered for the study. Demographic information of students is shown in Table 1.

**Table 1.** Personal information about students

Variable	Groups	n	%
Year	3	68	30.5%
	4	102	45.7%
	5	53	23.8%
Gender	Female	124	55.6%
	Male	99	44.4%
Graduated high school	Anatolian H. School	110	49.3%
	Science High School	84	37.7%
	Other	29	13.0%
Attendance at prep class	No prep class	188	84.3%
	Secondary school prep class	4	1.8%
	High school prep class	5	2.2%
	University prep class	26	11.7%
Eng. knowledge of parents	Mother speaks English	4	1.8%
	Father speaks English	19	8.5%
	Both parents speak English	11	4.9%
	Neither parent speaks English	189	84.8%
		<b>223</b>	

### 1. English Self-Efficacy Belief Levels of University Students

Effort has been paid to determine English self-efficacy belief levels of university students in general and in terms of reading, writing, listening and speaking sections. In Table 2, some descriptive statistics regarding English self-efficacy belief levels and relevant sub-sections are given.

When the table is examined, it is found that the mean score of university students' English self-efficacy beliefs is  $\bar{x} = 2.59$  and the standard error is 0.048. This value reflects that English self-efficacy belief of students is at "low level".

**Table 2.** English self-efficacy belief levels of students

Sections	n	min	max	$\bar{x}$	se
Reading	223	1.00	5.00	2.75	0.052
Writing	223	1.00	4.40	2.37	0.046
Listening	223	1.00	5.00	2.75	0.056
Speaking	223	1.00	5.00	2.50	0.056
<b>Self-efficacy total</b>	<b>223</b>	<b>1.03</b>	<b>4.81</b>	<b>2.59</b>	<b>0.048</b>

In terms of sub-sections, students obtained the highest self-efficacy belief scores in reading and listening ( $\bar{x}$  =2.75), followed by speaking ( $\bar{x}$  =2.50) and writing ( $\bar{x}$  =2.37) skills, respectively.

## 2. Examination of English Self-Efficacy Belief Levels of University Students According to Personal Variables

### 2.1. English Self-Efficacy Beliefs of Students by Gender Variable

As seen in Table 3, there is a statistically significant difference between the total scores of female students ( $\bar{x}$ =2.52) and the total scores of male students ( $\bar{x}$  =2.68) as regards English self-efficacy beliefs. When examined in terms of both the English self-efficacy scores in total and the sub-sections, it was found that males have a higher arithmetic mean than females in all sub-sections with the exception of writing skills. According to the results of the t-test performed to determine whether this difference between males and females is significant, it was found that the difference between them is highly significant at the ( $p<0.01$ ) level.

**Table 3.** T-test Results of the Comparison of English Self-Efficacy Beliefs of Students by Gender

Sections	Gender	$\bar{x}$	se	t	p
Reading	Female	2.69	0.055	0.261	0.000**
	Male	2.81	0.094		
Writing	Female	2.32	0.056	0.257	0.061
	Male	2.43	0.077		
Listening	Female	2.69	0.059	0.253	0.000**
	Male	2.82	1.010		
Speaking	Female	2.38	0.062	0.014	0.000**
	Male	2.65	0.099		
<b>Self-efficacy total</b>	<b>Female</b>	<b>2.52</b>	<b>0.051</b>	<b>0.106</b>	<b>0.000**</b>
	<b>Male</b>	<b>2.68</b>	<b>0.087</b>		

\*means  $p<0.05$  \*\*means  $p<0.01$

### 2.2. English Self-Efficacy Beliefs of Students by Year Variable

When Table 4 is analyzed in terms of English self-efficacy total and sub-section scores, it was found that the students have a similar arithmetic mean regardless of their level of years studying. One-way analysis of variance results has shown that the difference between the levels of years they are studying is not significant ( $p>0.05$ ).

### 2.3. English Self-Efficacy Beliefs of Students by Graduated School Variable

When the Table 4 is analyzed in terms of English self-efficacy scores in total and sub-section scores, it is found that the groups have a similar arithmetic mean in total and in all sub-sections with the exception of reading skills. In the reading sub-section, only the graduated school variable caused a significant difference among the students ( $p<0.05$ ).

### 2.4. Self-efficacy Beliefs of Students According to Attendance at Preparatory Class

When the Table 4 is analyzed in terms of English self-efficacy scores in total and sub-section scores, it was found that the groups have a similar arithmetic mean in total and in all sub-sections in terms of attendance at English preparatory class ( $p>0.05$ ).

### 2.5. English Self-efficacy Beliefs of Students According to the English Proficiency Levels of Parents Variable

When Table 4 is examined, it was found that the English proficiency level of the parents did not lead to a significant variance in the arithmetic mean of the students' English self-efficacy scores in total and sub-section scores ( $p>0.05$ ).

## 3. Comparison of Correct Answers Given by University Students to English Questions between Groups

According to the answers of students to the English test questions, attendance at preparatory class and the parent's proficiency level of English did not cause any significant difference ( $p>0.05$ ). The graduated school variable caused a significant difference at the  $p<0.05$  level. The number of correct answers given by female students was statistically significantly higher than male students ( $p<0.01$ ). When the year variable



**Table 4.** One-way analysis of variance results regarding the comparison of English self-efficacy beliefs of students according to “year, graduated school, attendance at preparatory class and English proficiency of parents” variables

Sections	Year	$\bar{x}$	se	F	p
Reading	3 <sup>rd</sup> year	2.68	0.085	0.415	0.661
	4 <sup>th</sup> year	2.79	0.082		
	5 <sup>th</sup> year	2.74	0.104		
Writing	3 <sup>rd</sup> year	2.38	0.080	2.172	0.116
	4 <sup>th</sup> year	2.45	0.071		
	5 <sup>th</sup> year	2.21	0.092		
Listening	3 <sup>rd</sup> year	2.74	0.100	1.081	0.341
	4 <sup>th</sup> year	2.82	0.090		
	5 <sup>th</sup> year	2.61	0.093		
Speaking	3 <sup>rd</sup> year	2.43	0.097	0.361	0.697
	4 <sup>th</sup> year	2.54	0.086		
	5 <sup>th</sup> year	2.52	0.115		
<b>Self-efficacy total</b>	<b>3<sup>rd</sup> year</b>	<b>2.56</b>	<b>0.084</b>	<b>0.659</b>	<b>0.518</b>
	<b>4<sup>th</sup> year</b>	<b>2.65</b>	<b>0.076</b>		
	<b>5<sup>th</sup> year</b>	<b>2.52</b>	<b>0.091</b>		
	<b>Graduated H. School</b>	$\bar{x}$	se	F	p
Reading	Anatolian H. School	2.62 <sup>a</sup>	0.070	3.558	0.030*
	Science High School	2.83 <sup>ab</sup>	0.085		
	Other	2.99 <sup>b</sup>	0.155		
Writing	Anatolian H. School	2.31	0.060	0.844	0.432
	Science High School	2.42	0.082		
	Other	2.45	0.137		
Listening	Anatolian H. School	2.69	0.077	0.675	0.510
	Science High School	2.78	0.091		
	Other	2.87	0.175		
Speaking	Anatolian H. School	2.40	0.071	1.482	0.230
	Science High School	2.59	0.093		
	Other	2.62	0.203		
<b>Self-efficacy total</b>	<b>Anatolian H. School</b>	<b>2.50</b>	<b>0.063</b>	<b>1.688</b>	<b>0.187</b>
	<b>Science High School</b>	<b>2.65</b>	<b>0.081</b>		
	<b>Other</b>	<b>2.73</b>	<b>0.156</b>		
	<b>Attendance</b>	$\bar{x}$	se	F	p
Reading	No prep class	2.72	0.053	1.010	0.389
	Secondary school prep class	2.75	0.492		
	High school prep class	2.50	0.342		
	University prep class	2.98	0.195		
Writing	No prep class	2.32	0.049	2.076	0.104
	Secondary school prep class	2.45	0.392		
	High school prep class	2.40	0.311		
	University prep class	2.68	0.145		
Listening	No prep class	2.73	0.059	1.065	0.365
	Secondary school prep class	2.60	0.535		
	High school prep class	2.38	0.312		
	University prep class	2.98	0.197		
Speaking	No prep class	2.49	0.060	0.062	0.980
	Secondary school prep class	2.50	0.597		
	High school prep class	2.60	0.135		
	University prep class	2.55	0.190		
<b>Self-efficacy total</b>	<b>No prep class</b>	<b>2.57</b>	<b>0.051</b>	<b>0.828</b>	<b>0.480</b>
	<b>Secondary school prep class</b>	<b>2.58</b>	<b>0.490</b>		
	<b>High school prep class</b>	<b>2.47</b>	<b>0.250</b>		
	<b>University prep class</b>	<b>2.80</b>	<b>0.170</b>		

	English Proficiency of Parents	$\bar{x}$	se	F	p
Reading	Mother speaks English	2.84	0.129	2.210	0.088
	Father speaks English	3.10	0.133		
	Both parents speak English	3.03	0.297		
	Neither parent speaks English	2.69	0.056		
Writing	Mother speaks English	2.25	0.176	0.525	0.666
	Father speaks English	2.51	0.127		
	Both parents speak English	2.53	0.196		
	Neither parent speaks English	2.35	0.052		
Listening	Mother speaks English	3.05	0.166	2.315	0.077
	Father speaks English	3.13	0.129		
	Both parents speak English	3.09	0.317		
	Neither parent speaks English	2.68	0.061		
Speaking	Mother speaks English	2.46	0.299	1.013	0.388
	Father speaks English	2.80	0.165		
	Both parents speak English	2.64	0.285		
	Neither parent speaks English	2.46	0.062		
Self-efficacy total	Mother speaks English	2.65	0.169	1.620	0.186
	Father speaks English	2.88	0.119		
	Both parents speak English	2.80	0.255		
	Neither parent speaks English	2.55	0.053		

\*means  $p < 0.05$  Letters <sup>a,b</sup> refer to statistically significant difference.

**Table 5.** Comparison of the correct answers given by the students to the English language questions according to the variables related to the students

Variable	Groups	$\bar{x}$	se	p
Year	3	7.19 <sup>a</sup>	0.420	0.001**
	4	9.90 <sup>b</sup>	0.472	
	5	8.70 <sup>ab</sup>	0.654	
Gender	Female	9.72	0.506	0.006**
	Male	8.05	0.357	
Graduated high school	Anatolian H. School	8.42 <sup>a</sup>	0.391	0.046*
	Science High School	8.61 <sup>a</sup>	0.463	
	Other	10.72 <sup>b</sup>	1.177	
Attendance at prep class	No prep class	8.65	0.313	0.163
	Secondary school prep class	8.50	3.663	
	High school prep class	6.00	1.924	
	University prep class	10.35	1.104	
Eng. knowledge of parents	Mother speaks English	8.25	1.493	0.994
	Father speaks English	8.84	1.015	
	Both parents speak English	9.00	1.018	
	Neither parent speaks English	8.78	0.339	
<b>Total</b>		<b>8.79</b>	<b>0.304</b>	

\*means  $p < 0.05$  \*\*means  $p < 0.01$  Letters <sup>a,b</sup> refer to statistically significant difference between groups. The difference between the mean scores of correct answer given by 3<sup>rd</sup> and 4<sup>th</sup> year students was statistically significant.

**Table 6.** The correlation between the number of correct answers given by the students to the test questions and their English self-efficacy beliefs

	Reading	Writing	Listening	Speaking	Self-efficacy total	p
Number of correct answers	<b>.568**</b>	<b>.489**</b>	<b>.476**</b>	<b>.519**</b>	<b>.558**</b>	<b>0.000</b>
Reading		.804**	.831**	.790**	.931**	0.000
Writing			.769**	.759**	.899**	0.000
Listening				.792**	.927**	0.000
Speaking					.914**	0.000

\*\* means correlation is significant



is examined, the highest correct answer mean score belongs to 4<sup>th</sup> year students, and the lowest correct answer mean score belongs to 3<sup>rd</sup> year students, and this difference is statistically highly significant ( $p < 0.01$ ) (Table 5).

The result of the analysis performed to calculate the mean score of the correct answers given by a total of 223 students participating in the study to the 23 questions in the test was  $8.79 \pm 0.304$ . The lowest value was determined as "0" and the highest value was determined as "23".

#### 4. Correlation between the Answers of University Students to English Language Questions and their English Self-Efficacy Beliefs

The values in the correlation table show that there is a significant correlation between the number of correct answers given to the entire English self-efficacy level and its sub-sections ( $p < 0.01$ ). As the belief in English self-efficacy increases, the number of correct answers to the English questions in the test also increases. Similarly, there is a significant correlation at  $p < 0.01$  level between the total value of self-efficacy and every sub-section (Table 6).

## DISCUSSION

When the relevant national and international literature is examined, it was found that there are several studies examining the relationship between English self-efficacy and academic achievement.<sup>15,18,19</sup> To the best of our knowledge, this study is the first and only one questioning English qualification and English self-efficacy of students in the field of dentistry.

The first result reached in the study is that the English self-efficacy beliefs of university students are at a "low level". This result shows that the students do not consider themselves successful in learning the English language.<sup>20</sup> At the end of the research, it was stated that Turkish university students who learn English as a foreign language have a medium level of English self-efficacy perception. In his study in 2007, Duman<sup>21</sup> stated that learners have difficulty in being motivated when their self-efficacy is low, and they are reluctant to participate in the activities related to the subject because they do not think that they can be successful. He concluded that, as a result, these students show lower success compared to students

with high self-efficacy. In numerous studies focusing on the relationship between self-efficacy perception for and achievement in second/foreign language, it has been concluded that self-efficacy perception is positively related to the English success of students.<sup>2,22-24</sup> The highly significant correlation between the entire self-efficacy and its sub-sections and the number of correct answers given in our study supports the findings in the literature.

It was found that students' English self-efficacy beliefs are "moderate" in terms of reading and listening skills, and "low" in terms of writing and speaking. In addition, the fact that listening and reading skills are receptive rather than productive may cause students to perceive themselves as more successful in their personal experiences. It is believed that the low level of speaking and writing self-efficacy of the participants is due to the extremely limited opportunity to use the language outside the classroom, which is a characteristic of teaching English as a foreign language in Turkey.<sup>14</sup> In particular, all the details such as content, order, flow and harmony of ideas, grammar rules, word choice and vocabulary, and punctuation marks have to be employed together in writing skill, which may have caused a low self-efficacy belief in this area.<sup>25</sup> A study conducted by Ghonsooly and Elahi<sup>26</sup> concluded that English language learners with strong self-efficacy perceptions have higher reading comprehension scores than those with weak self-efficacy perceptions. In another study, it was concluded that the skill in which students felt the least competent was speaking; however, a study by Hancı Yanar<sup>27</sup>, Karanfil<sup>28</sup> concluded that writing is the skill where participants feel the most incompetent. Balcı<sup>14</sup> and Taşdemir<sup>29</sup> revealed that English self-efficacy beliefs of high school students were highest in reading skills and lowest in speaking and writing skills. The scores obtained from the sub-categories of self-efficacy beliefs vary in the literature. The reason for this may be that the population with which the study is conducted consists of individuals with different English language backgrounds.

Various results were obtained in studies examining the English self-efficacy of both female and male students. Şener and Erol<sup>30</sup>, Arslan<sup>31</sup>, and Huang<sup>32</sup> found out that self-efficacy perception of female students is significantly higher compared to male

students. There are also studies in the literature which conclude that gender does not affect self-efficacy beliefs. Other authors found that self-efficacy beliefs of male students were higher compared to female students. In our study, it was observed that male students had high self-efficacy beliefs both in general and in all sub-sections. Although male students had higher self-efficacy beliefs, the number of correct answers given by female students to test questions was higher than male students. The reason for this may be due to the popular idea in male-dominated cultures that men are more successful and that they can overcome difficulties more easily.<sup>25</sup>

It was concluded that the year the students studying, the type of school they graduated from, their attendance at preparatory class and the English proficiency of their parents were not effective in their English self-efficacy belief in general. In the study conducted by Hancı Yanar<sup>27</sup> and Balci<sup>14</sup> at the high school level, it was determined that the students who received preparatory education had higher self-efficacy perceptions in English reading, writing, listening and speaking than other students, and it was concluded that preparatory education had a positive effect on English self-efficacy belief.

There are some limitations that should be considered in the generalization of the results obtained in this study. One of the limitations of the study is that since the scale used to collect quantitative data is a self-report one, it is not possible to be 100% sure that students or reflect their real opinions or do not misinterpret the scale items. The test conducted to measure English proficiency level of students is not a test with listening, speaking and writing sections. It consists of questions based on measuring reading comprehension, vocabulary and grammar knowledge. Although it can be considered as another limitation of this study, it is believed to be useful in reflecting the knowledge level of the students. Apart from that, the number of participants from whom the research data was collected is limited to 223. That being said, the fact that the students participating in the study come from different provinces of Turkey, different schools, and different socio-cultural-economic environments offers an advantage in terms of providing a general idea.

## CONCLUSION

The importance of self-efficacy perception in terms of ensuring a successful language learning process is underlined. It is emphasized that improving self-efficacy perception will have a positive effect on performance. As stated in the studies in the literature, the perception of self-efficacy is critical in terms of language learning performance. Nevertheless, it is frequently underlined that it is one of the least emphasized variables compared to other cognitive and sensory variables in learning environments where English is taught as a foreign language. Research can be conducted to improve the English self-efficacy levels of students and their English learning and usage skills. In addition, through education programs prepared in line with the data obtained from these studies, the level of achievement and belief of students can be increased.

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