# An Investigation Regarding the Preservice Teachers' Emotional Literacy Levels and Self-Efficacy Beliefs

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### **Abstract**

Self-efficacy beliefs and emotional literacy skills are considered as one of the most fundamental characteristics of teachers to create positive effects on students. The aim of this study is to investigate the relationship between preservice teachers' self-efficacy beliefs and their emotional literacy levels. This study is designed as a relational survey model research. Study group consisted of 318 volunteer preservice teachers who are fourth graders at education faculty in a state university in the West of Turkey, in 2015-2016 academic year. Teacher Efficacy Scale, Emotional Literacy Scale and Personal Information Form were used to collect data. The results of this study are that according to the gender, there is a significant difference in favor of female preservice teachers in social competence subscale and total score of emotional literacy scale; according to the departments preservice teachers are educated, there is a significant difference in emotional awareness and emotional self-efficacy subscales of emotional literacy scale; on the basis of the gender, preservice teachers' self-efficacy levels differ significantly in favor of female preservice teachers in teaching competency/external factors subscale and total score of the scale; according to the departments preservice teachers are educated, there is a significant difference in preservice teachers' self-efficacy levels in teaching competency/external factors subscale; and finally there is a positive relationship between preservice teachers' emotional literacy levels and their self-efficacy belief levels.

**Keywords:** social learning theory, transactional analysis, self-efficacy beliefs, emotional literacy, preservice teacher

# 1. Introduction

Self-efficacy is defined by Bandura (1986) as self judgements regarding organizing events to show performance and being able to accomplish it successfully. He also considers this trait as a powerful trait shaping one's behaviors. Self-efficacy is studied under a profession, it means how those who has the profession are equipped with the necessary knowledge and skills, and how they show the affective features necessary and how sufficient they see themselves in their profession.

Teachers play a crucial role on students' personal development. As teachers' weak personality may cause failures and educational traumas, teachers are expected to have powerful personalities and be sufficient in their job (Türkoğlu, 1990; Brophy, 1981; Bloom, 1979). Teachers' professional and personal features have a direct effect on the qualification of teaching and learning process.

One of the prominent features that a teacher is supposed to have in order to create positive effects on their students is their self-efficacy beliefs in teaching and learning processes (Doruk & Kaplan, 2012; Louis & Mistelethe, 2011; Yıldırım, 2011; Dede, 2008; Swars, Hart, Smith S., Smith M., & Tolar, 2007; Erden, 2005; Ada & Ünal, 2004; Küçükahmet, 2000; Büyükkaragöz, 1998). When the literature is reviewed, it is found out that there are researches that state a positive relationship between teachers' self-efficacy beliefs and their students' academic success (Özdemir, 2008; Smith, 1996; Hoy & Woolfolk, 1990; Peterson, Fennema, Carpenter, & Loef, 1989).

Another feature that teachers are expected to have in order to promote a powerful learning for students is emotional literacy skills. Emotional literacy concept is first used in 1970s by Claude Steiner (2003), transactional

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analysis theorist, and defined as knowing of our feelings in a way to improve the life qualities and personal power of our and people around us.

Five major skills have been identified by Steiner (2003, 1996) who has done extensive research on teaching emotional literacy which are "being aware of own feelings, developing sincere empathy, managing emotions, restoring emotional damages and developing emotional interaction". It is expressed by Steiner that emotional literacy is often grounded on the feeling "love"; in other words, it is heart-centered. Although emotional literacy is often used instead of emotional intelligence, there are differences between these two concepts. It is also stated by Bocchino (1999) that emotional intelligence is a potential from the birth while emotional literacy is skills that can be developed afterwards and is about the perception and control of affective processes. Weare (2004), on the other hand, discusses the use of "intelligence" and defend that social and emotional capacity come from the birth and cannot be taught. Instead, he proposes to use the term "emotional literacy" and defines it as "...ability to understand ourselves and other people, and in particular to be aware of, understand, and use information about the emotional states of ourselves and others with competence" (Weare, 2004, p. 2).

When the literature regarding the "emotional literacy" is reviewed, it can be seen that most of the researches are focused on children and young people (Matsumoto, 2012; Kandemir & Dündar, 2008; Antidote, 2003; Liau A. K., Liau A. W., Teoh, & Liau M., 2003). Besides, some researches that were done with grown-ups and teachers revealed that emotional literacy is related to some other psychological variables such as coping behavior, general well-being, emotional well-being, etc. (Chan, 2008; Adeyemo, 2007; Carmeli, Yitzhak-Halevy, & Weisberg, 2009).

While there has been studies in the literature investigated the relationship between teachers' and preservice teachers' self-efficacy beliefs and emotional intelligences (Şenel, Adiloğulları, & Ulucan, 2014; Hashemi, 2011; Salami, 2007), any research focusing on the relationship between preservice teachers' self-efficacy beliefs and emotional literacy has not been encountered. That's why, this study is considered important as it provides contribution the literature. The aim of the research is to determine the relationship between preservice teachers' self-efficacy beliefs and emotional literacy levels. The questions which are related to the main aim of this research are as presented:

- 1) Do the scores of preservice teachers' emotional literacy show significant difference according to the gender?
- 2) Do the scores of preservice teachers' emotional literacy show significant difference according to the department?
- 3) Do the scores of preservice teachers' self-efficacy show difference according to the gender?
- 4) Do the scores of preservice teachers' self-efficacy show difference according to the department?
- 5) Is there a relationship between the preservice teachers' scores obtained from Emotional Literacy Scale and Teacher Efficacy Scale?

#### 2. Method

This study is designed as a relational survey model. Survey research are used to describe a situation as it is now or it was in the past. Relational model, however, are aimed to present the presence or level of covariance of two or more variables (Karasar, 2005).

#### 2.1 Participants

Study group consisted of 318 fourth grade volunteer preservice teachers who are from a public university in the West of Turkey. Preservice teachers who attended the research are 65% females and 35% males. Distribution of the participants according to the departments is as follows; 8.2% from English language teaching, 4.4% from chemistry teacher education, 6.6% from art and crafts teacher education, 5.3% from mathematics teacher education, 9.4% from elementary teacher education, 14.5% from science and technology teacher education, 6.9% from music teacher education, 6.9% from French language teaching, 12.3% from Turkish language and literature teaching, 7.2% from history teacher education, 4.7% from biology teacher education, 8.5% from geography teacher education, 5% from computer and instructional technologies teacher education.

## 2.2 Data Collection Tools

#### 2.2.1 Teacher Efficacy Scale

The first data collection tool is used to determine the teachers' self-efficacy. The scale was adopted by Diken (2005). Construct validity was investigated via explanatory factor analysis after the Turkish translation. According to the analysis results, 16 items out of 21 in original scale were decided to be used in Turkish form.

There are two dimensions in the scale; general teaching efficacy/external factors and personal teaching efficacy/internal factors. Maximum score that one can get from the scale is 80 while the minimum is 16. As the score gets higher, the teachers' self-efficacy levels rise. Cronbach Alpha was used for reliability test. The internal consistency coefficient of the scale is 0.71.

## 2.2.2 Emotional Literacy Scale

The second scale used in this study is Emotional Literacy Scale developed by Akbağ, Eminoğlu-Küçüktepe and Eminoğlu-Özmercan (2016). As a result of the explanatory and confirmatory factor analysis, the scale has 34 items. This likert scale has five subscales which are emotional awareness, social competence, understanding emotions, emotional self-efficacy and regulating emotions. The Cronbach Alpha coefficient for the scale is 0.80. Test re-test analysis was carried out 15 days break to 45 people. The test re-test coefficient is 0.89. Minimum score that can be obtained from the scale is 34 while the maximum is 170. As the score from the scale rises, emotional literacy level rises.

### 2.2.3 Personal Information Form

Personal Information Form is also used to gather information about the gender and the department preservice teachers are educated.

# 2.3 Collection and Analysis of Data

Teacher Efficacy Scale, Emotional Literacy Scale and Personal Information form were applied by the researchers. The scales were completed in approximately 40 minutes by preservice teachers. Preservice teachers are provided with the information regarding the aim and the importance of the study and the data from the scales. They are told to not to leave any questions unanswered. They are also informed that there are no true or false answers; thus, they do not need to worry but to mark the closest statement to them. Preservice teachers are also informed about the privacy of the data.

Pearson Correlation Coefficient is used in data analysis to calculate the relationship between the Teacher Efficacy Scale and Emotional Literacy Scale. Independent sample t test is performed to investigate the difference of total and subscale scores of Teacher Efficacy Scale and Emotional Literacy Scale according to the gender. One-Way Analysis Variance (ANOVA) is used to investigate the difference of total and subscale scores of Teacher Efficacy Scale and Emotional Literacy Scale according to the department preservice teachers are educated.

#### 3. Results

Data gathered in the research process are presented as the research questions presented. Whether the preservice teachers' Emotional Literacy scores differ according to the gender is analyzed via independent sample t test. The results are as shown in Table 1.

Table 1. Results of independent sample t-test to determine whether the Emotional Literacy Scale scores differ according to the gender

Emotional Literacy Scale			N	$\overline{X}$	Sd	df	t	p
1	Subscale: Emotional Awareness	Female	207	3.696	0.374	216	1.277	0.203
1.	Subscare: Emotional Awareness	Male	111	3.638	0.389	316		
2.		Female	207	3.851	0.347	216	3.967	0.000*
	Subscale: Social Competence	Male	111	3.681	0.373	316		
3.	Subscale: Understanding Emotions	Female	207	3.446	0.400	316	0.379	0.705
3.	Subscale. Understanding Emotions	Male	111	3.428	0.389			
4.	Subscale: Emotional Self-Efficacy	Female	207	2.777	0.379	316	0.973	0.332
4.		Male	111	2.732	0.400	310	0.9/3	
-	Cubanda Dandaina Ematina	Female	207	2.663	0.428	216	1 440	0.149
5.	Subscale: Regulating Emotions	Male	111	2.745	0.508	316	-1.448	
Total Score		Female	207	3.391	0.182	316	2.793	0.006*
		Male	111	3.329	0.192	310	2.193	

<sup>\*</sup>p<0.05

Table 1 presents the finding whether there is a significant difference in emotional literacy scale scores according to the gender. As shown in Table 1, there shows a significant difference in the second subscale which is social competence and in the total score. This difference is in favor of female preservice teachers ( $\overline{X}$ =3.85) in social competence subscale (t=3.967; p<0.05). There is also another significant difference in favor of female ( $\overline{X}$ =3.39) preservice teachers in total score (t=2.793; p<0.05).

One-Way Analysis of Variance (ANOVA) is used to investigate the difference of total and subscale scores of Teacher Efficacy Scale and Emotional Literacy Scale according to the department preservice teachers are educated. Table 2 shows the ANOVA results carried out to investigate whether the scores from emotional literacy scale differ according to the department.

Table 2. Results of ANOVA to determine whether the Emotional Literacy Scale Scores Differ according to the department

Emotiona	al Literacy Scale	Variance origin	Sum o Squares	f df	Mean Square	F	p	Significant difference
	Subscale: Emotional Awareness	Between groups	3.200	12	0.267		0.033*	Music Teaching -CIT
		Within groups	42.626	305	0.140	1.908		
		Total	45.826	317				CII
	Subscale: Social Competence	Between groups	1.069	12	0.089			
2.		Within groups	41.190	305	0.135	0.659	0.790	
		Total	42.259	317				
3.	Subscale: Understanding Emotions	Between groups	2.234	12	0.186			
		Within groups	47.491	305	0.156	1.196	1.196 0.285	
		Total	49.725	317				
4.	Subscale: Emotional Self-Efficacy Subscale: Regulating Emotions	Between groups	4.106	12	0.342			CIT- History Teaching
		Within groups	43.334	305	0.142	2.408	0.005*	
		Total	47.440	317				
		Between groups	3.295	12	0.275			
5.		Within groups	63.547	305	0.208	1.318	0.207	
		Total	66.842	317				
		Between groups	0.471	12	0.039			
Total Score		Within groups	10.745	305	0.035	1.114	0.348	
		Total	11.216	317				

<sup>\*</sup>p<0.05

As shown in Table 2, there is no significant difference according to the departments in social competence, understanding emotions and regulating emotions subscales and in total score of Emotional Literacy Scale. However, scores in the emotional awareness subscale show significant difference according to the department [F(12-305)=1.908; p<0.05]. Also, scores in the emotional self-efficacy subscale show significant difference according to the department [F(12-305)=2.408; p<0.05]. Bonferroni post-hoc analysis is applied to detect the variance origin. The results show that for emotional awareness subscale, music teaching preservice teachers have higher scores than computer and instructional technologies preservice teachers (CIT). On the other hand, in emotional self-efficacy subscale computer and instructional technologies department preservice teachers gained higher scores from history teaching preservice teachers.

The result in Table 3 shows the t test finding for the scores in Teacher Efficacy Scale according to the gender.

Table 3. Results of independent sample t-test to determine whether the Teacher Efficacy Scale scores differ according to the gender

Teacher I	Efficacy Scale	Gender	N	$\overline{X}$	Sd	df	t	p		
1.	Subscale:	General	Teaching	Female	207	3.208	0.437	316	2.325	0.021*
	Efficacy/External Factors			Male	111	3.093	0.412	310	2.323	0.021
2.	Subscale: Personal Efficacy/Internal Factors	Personal	Teaching	Female	207	3.666	0.388	216	0.655	0.512
			Male	111	3.638	0.394	316	0.655	0.513	
Total Score			Female	207	3.319	0.327	216	2.106	0.020*	
			Male	111	3.234	0.331	316	2.196	0.029*	

<sup>\*</sup>p<0.05.

Table 3 shows whether the scores from Teacher Efficacy Scale according to the gender. When Table 3 is investigated, it is seen that there are significant differences according to the gender in general teaching efficacy/external factors and in total score of the scale. This significant difference in general teaching efficacy/external factors are in favor of female preservice teachers ( $\overline{X} = 3.85$ , t=2.325; p<0.05). The significant difference in total scale score is again in favor of female preservice teachers ( $\overline{X} = 3.39$ ; t=2.196; p<0.05).

One-Way Analysis of Variance (ANOVA) is used to determine the difference of total and subscale scores of Teacher Efficacy Scale according to the department. The findings are as in Table 4.

Table 4. Results of ANOVA to determine whether the Teacher Efficacy Scale scores differ according to the department

Teacher Efficacy Scale		Variance Origin	Sum Squares	of	df	Mean Square	F	p	Significant Difference
		Between Groups	6.730		12	0.561			English language.
1.	Subscale: General	Within Groups	52.276		305	0.171			Chemistry. Primary
	Teaching Efficacy/External Factors	Total			317		3.272	0.000*	Teaching. Science and Technology. Turkish language and literature. Music Teaching
2.	Subscale: Personal Teaching Efficacy/Internal Factors	Between Groups	1.007		12	0.084			
		Within Groups	47.177		305	0.155	0.542	0.886	
		Total			317				
Total Score		Between Groups	2.695		12	0.225			
		Within Groups	31.999		305	0.105	2.141	0.015*	-
		Total			317				

<sup>\*</sup>p<0.05.

As seen in Table 4, there can be concluded no significant difference in personal teaching efficacy/internal factors subscale of Teacher Efficacy Scale. Yet, it is found a significant difference according to the departments in general teaching efficacy/external factors [F(12-305)=3.272; p<0.05]. It is also presented that total score of the Teacher Efficacy Scale differ significantly according to the departments [F(12-305)=2.141; p<0.05]. Bonferroni post-hoc is used in order to reveal the variance origin. According to the post-hoc analysis, this significant difference is in favor of the department which are English language, Elementary School teaching, Chemistry, Science and Technology and Turkish language and literature among English language, Elementary School teaching, Chemistry, Science and Technology, Turkish language and literature and Music teaching. Although there has been observed a significant difference according to ANOVA results in total score, there has not been detected any significant difference according to the post-hoc analysis.

Table 5 presents the result of Pearson Correlation analysis to investigate the relationship between the scores obtained from Teacher Efficacy Scale and Emotional Literacy Scale.

Table 5. Correlation results between Emotional Literacy Scale and Teacher Efficacy Scale

		Emotional Literacy Scale	Teacher Efficacy Scale
	Pearson Correlation	1	0.199**
Emotional Literacy Scale	Sig. (2-tailed)		0.000
	N	318	318
	Pearson Correlation	0.199**	1
Teacher Efficacy Scale	Sig. (2-tailed)	0.000	
	N	318	318

As shown in Table 5, between the scores obtained from the Emotional Literacy and Teacher Efficacy Scales, positive little relationship was confirmed.

#### 4. Discussion

In previous studies, emotional literacy was tried to be measured by emotional intelligence scales because it was a concept close to one another. In this study, research was designed using a scale that directly measures emotional literacy.

The finding for the first research question revealed that in emotional literacy scale total score and social competence subscale score, there is a significant difference in favor of female preservice teachers. There are other researches supporting this finding (Harrod & Scheer, 2005; Katyal & Awasthi, 2005; Sevindik, Uncu, & Güneş-Dağ, 2012).

When the findings of the second research question were studied, preservice teachers showed a significant difference in emotional awareness and emotional self-efficacy subscales of Emotional Literacy Scale according to their department. Based on this finding, it can be expressed that in emotional awareness subscale, the significant difference is in favor of the music teaching preservice teachers among music teaching and computer and instructional technologies. Another significance difference is detected in emotional self-efficacy subscale. The difference in this subscale is in favor of the computer and instructional technologies department preservice teachers compared to history teaching department preservice teachers. When these findings are analyzed, it can be concluded that the reason why music teaching department preservice teachers' score is significantly higher than computer and instructional technologies department preservice teachers in emotional awareness subscale might be because that the schedule of music teaching department consists of art lessons and has an effect on affective variables. The reason why computer and instructional technologies department preservice teachers scored significantly higher than history teaching department preservice teachers in emotional efficacy subscale might be due to the belief of CIT preservice teachers' on their self-perception skills of dealing with emotional problems.

The findings of the third question are that preservice teachers' self-efficacy levels show significant differences in favor of female preservice teachers according to the gender in total score and general teaching efficacy/external factors subscale. There have been evidences in the literature supporting this finding (Gökdağ, 1996; Eminoğlu-Küçüktepe, 2007; Andersen, 2011). This result might be because those female students consider themselves appropriate for the profession and have the belief that they can do it better.

According to the findings of the fourth research question, preservice teachers' self-efficacy levels show significant differences on the basis of the departments. In general teaching efficacy/external factors subscale, the scores are in favor of English language, Chemistry, Elementary School teaching, science and technology and Turkish language and literature departments among English language, Chemistry, Elementary School teaching, science and technology, Music and Turkish language and literature. It was found by Talşık (2016) that music teachers have a lower level of professional efficacy perception. This might be due to the fact that people who are in music teaching department do not consider being teachers in the future and preferring doing music as an art, not as a teaching profession. However, although there happens a significant difference in self-efficacy total score mean according to ANOVA results, post-hoc analysis finds no significant difference.

It is also determined on the basis of fifth research question that there is a positive relationship between preservice teachers' emotional literacy levels and self-efficacy beliefs. As a result, if preservice teachers' emotional literacy levels rises, their self-efficacy beliefs do the same. In the literature, there has been no research made regarding the relationship between preservice teachers' emotional literacy and their self-efficacy beliefs, there are researches noting that there is relationship between emotional intelligence and self-efficacy beliefs (Amirian & Behshad, 2016; Şenel, Adiloğulları, & Ulucan, 2014; Wossenie, 2014; Hashemi, 2011; Salami, 2007; Chan, 2008). Existing researches do support these finding. As explained before, emotional literacy is often used as a synonym with emotional intelligence; however, emotional intelligence is a trait that is from the birth while emotional literacy can be developed afterwards (Wear, 2004; Bocchino, 1999). That's how they are closely related. Due to this close relation between these two variables, it can be thought as naturel that the result of emotional intelligence researches can support this study.

On the basis of the finding of this research, it can be suggested to add courses and events to the schedules of education faculties to foster preservice teachers' emotional literacy as there is a relationship between preservice teachers' emotional literacy and self-efficacy beliefs. After graduation in-service teacher trainings including emotional awareness and emotional literacy can also be proposed to Ministry of National Education to improve self-efficacy.

It is also considered important that psychological counseling and guidance services in higher education, which are not yet common in Turkey but active in some universities, are widely implemented in all universities and that psychoeducation programs for improving the emotional literacy of preservice teachers within these services are developed and implemented.

There are some limitations to this study. First, it is suggested to carry out this specific study again with a broader perspective in order to generalize the findings. As the study group is the preservice teachers, it can be suggested to redo the research with teachers in the field and compare the results. The relationship between emotional literacy and self-efficacy beliefs should be re-investigated with the variables that might affect self-efficacy. Finally, the relationship between emotional literacy skills and teacher job satisfaction, psychological well-being, coping strategies, conflict resolution, etc., might be determined in the context of teaching profession.

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