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## The Effects of Pre-service Teachers' Extracurricular Study Habits and Emotion Regulation on Lifelong Learning Tendencies in Covid-19 Process

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The Coronavirus (Covid-19 epidemic) affects the education process negatively, like many other sectors. This situation leads to differentiation of extracurricular study habits primarily because of the fact that individuals have difficulties in emotion regulation, away from the school environment and many activities. In addition to these situations, being away from many applied courses as a student of education faculty may cause them to take a different attitude towards lifelong learning tendencies in their development process. In this study, the effect of pre-service teachers' extracurricular study habits and the emotion regulation strategies on lifelong learning tendencies which will contribute them becoming a useful teacher by developing themselves is examined in Covid-19 process. In this context, a scale prepared in three different Likert formats was applied to undergraduate students studying at the Faculty of Education at X University. These scales are "Lifelong Learning Tendency Scale" developed by Coşkun (2009), "Emotion Regulation Scale", which was first developed by Gross and John (2003) and later adapted to Turkish by Yurtseven (2008), and "Extracurricular Study Habits Scale" developed by Ermeydan (2019). After obtaining the data, multiple regression analysis was performed to examine the relationship between the pre-service teachers' studying habits and emotion regulation strategies and their effect on lifelong learning tendencies. The results obtained were discussed in the light of the literature.

**Keywords:** Lifelong Learning Tendency, Covid-19, Extracurricular Study Habits, Emotion Regulation

## **1. Introduction**

In a learning society, individuals create their own learning opportunities, regardless of the condition or age (Green, 2002). The concept of lifelong learning is a continuous process that emerges on the basis of this learning process. UNESCO offers lifelong learning at all ages (children, young people, adults and seniors, girls and men, women and men) in all life contexts (family, school, society, workplace, etc.) and together in a variety of methods (formal and informal) as meeting a wide range of learning needs and demands (LLL, 2016). In the United Nations (UN) 2030 Sustainable Development Goals, one of the important goals for education is to promote lifelong learning opportunities for all. Life long learning differentiates from other learning processes by considering the individual at the level of education as the basic, by presenting a learning environment outside the school environment, by changing the perception of the school role, by strengthening social qualities in contrast to all these and without placing time limit on the learning process (Güleç, Çelik & Demirhan, 2012; Loads, 2007). In other words, lifelong learning involves the self-fulfillment efforts of an individual who has met basic requirements for knowledge and skill acquisition in a school environment in order to attain individual high-level objectives. One of the important factors that enable this effort is the individual's self-motivation (Department of Education and Science, 2000). In the field of education, the individual's self-motivation reveals the concept of studying habits. Studying habits also play an important role in educational programs (Holland & Andre, 1987) and in the activities that students participate in after the normal school day (Cadwallader, Garza, & Wagner, 2002; Marsh & Kleitman, 2002). It has become a necessity to acquire how to use knowledge and how to produce new information with this knowledge in order to gain lifelong learning skills, and to adopt extracurricular study habits to the individual and the ability to run these habits in a planned and systematic manner. Performing the extracurricular study in a qualified manner is only possible with a qualified study habit (Aslan, 2005; Tay, 2005). This habit gives professional preparation behavior in studies such as listening to lecture and preparing homework (Tan, 1992). Individuals may choose different ways in line with their tendencies in order to reach information in the lifelong learning process. In this process, it is inevitable to benefit from social and emotional learning. Because social emotional learning, which can be described as a systematic and consistent behavioral reflection of social and emotional skills, has a positive relationship with lifelong learning that can be defined as all kinds of learning, including formal, non-formal or informal learning that exists throughout life (Akcaalan, 2016). When it comes to social and emotional skills, 'emotion regulation' is another important concept that explores the effectiveness of lifelong learning. Emotion regulation is a concept for explaining how individuals are affected and how it affects their emotions and other people's feelings (Gross, 1999; Verzeletti, Zammuner, Galli & Agnoli, 2016). An individual who has the ability to regulate his emotions can direct his life actions (Gross, 2002; Koole, van Dillen, & Sheppes, 2009) and keep herself/himself away from the effects that may come from environmental factors that negatively affect her/his learning. Thus, self-learning control will be provided.

Considering the Covid-19 pandemic, which plays a key role in changing today's lifestyle, especially considering the lifelong learning qualities of teacher candidates, their extracurricular work habits and their emotions regulation, which can significantly affect the success of this process, the effect of these qualities on lifelong learning tendencies should be examined. In this context, "the effects of pre-service teachers' extracurricular study habits and emotion regulation on lifelong learning tendencies" was examined in the study.

## 2. Method

This study examines the effects of teacher candidates' extracurricular study habits and emotion regulation skills on lifelong learning tendencies. The relational survey model is used for research utilized quantitative research methods.

### 2.1. Working group

The study group for Quantitative and Qualitative dimensions is composed of 343 students from the faculty of education while the population of the study is composed of university students studying at X University in the 2019-2020 academic year spring semester.

Descriptive information of the students participating in the study is given in Table 1 according to the department, class and gender.

Table 1. Features of the students participating in the study

Department	Gender		Class				Total
			1	2	3	4	
Science Teacher Education	Gender	Girl		5	15	4	24
		Boy		8	9	4	21
	Total			13	24	8	45
Classroom Mathematics Teacher Education	Gender	Girl	0	21	7	6	34
		Boy	2	13	14	11	40
	Total		2	34	21	17	74
Pre-school Teacher Education	Gender	Girl	7	18	12	2	39
		Boy	0	3	9	2	14
	Total		7	21	21	4	53
Psychological Counseling and Guidance Teacher Education	Gender	Girl		15	1		16
		Boy		19	8		27
	Total			34	9		43
Art and Crafts Teacher Education	Gender	Girl	4	4	3	10	21
		Boy	1	2	6	17	26
	Total		5	6	9	27	47
Social Sciences Teacher Education	Gender	Girl	2	10	10	1	23
		Boy	2	8	4	5	19
	Total		4	18	14	6	42
Turkish Language Teaching	Gender	Girl	2	2	16	4	24
		Boy	3	2	10	0	15
	Total		5	4	26	4	39
Total	Gender	Girl	15	75	64	27	181
		Boy	8	55	60	39	162
	Total		23	130	124	66	343

Participation was made in seven different departments. The number of students participating is approximated by department, whereas students who participate in the

program do not differ greatly from departments. It is observed that the majority of the participants are female participants, although there are not many differences.

## *2.2. Data Collection*

### *Lifelong Learning Tendency Scale:*

The scale developed by Diker Coskun (2009) consists of 4 sub-dimensions. These sub-dimensions are called motivation, persistence, lack of curiosity and regulation of learning. Motivation and persistence sub-dimensions consist of six different items and are positively scored. The sub-dimensions of lack of curiosity and regulation of learning consist of six and nine sub-dimensions and negative expressions. The scale consists of 6-point likert type 27 substances. In the total score calculation, the lowest score on the scale after the negative points are reversed is 27 and the highest score is 162. Higher scores on the scale mean lower lifelong learning tendency. In this study, the internal validity coefficients of the scale were obtained as ,924 for the motivation sub-dimension, ,922 for the persistence sub-dimension, ,735 for the lack of regulation of learning sub-dimension, and ,894 for the lack of curiosity sub-dimension.

### *Emotion Regulation Scale:*

Developed by Gross and John (2003), this scale was first translated into Turkish by Yurtsever (2004)'s study. Adaptation and psychometric studies was also evaluated in Yurtsever (2008)'s study. Many researchers carried out the validity and reliability studies of the scale. The scale consists of 2 sub-dimensions; reappraisal and suppression. The first dimension on the scale consists of six; other dimension consists of 4 items. However, the total score for two sub-dimensions cannot be obtained. Many researchers conducted validity and reliability studies for the scale, which aims to measure with 7 Likert-type 10 items (Totan, 2015; Yurtsever, 2008; Eldeklioglu & Eroglu, 2015). The internal consistency coefficient for dimensions of the scale by Yurtsever (2008) was evaluated as ,85 for the reappraisal sub-dimension and ,78 for the suppression sub-dimension. In this study, the internal validity coefficient obtained for dimensions was evaluated as ,887 for the reappraisal sub-dimension and ,799 for the suppression sub-dimension.

### *Extracurricular Study Habits Scale:*

The scale developed by Ermeýdan (2019) has a 4-dimensional structure and consists of 17 items. There are six 'strategy' items, four 'motivation' items, four 'planning' items and three 'environment' items on the scale. The scale contains items with reverse scores. Total score can be obtained for the 5-point Likert scale. The lowest score on the scale is 17 and the highest score is 85. The high score on the scale indicates that the student has a high ability of extracurricular study. For this study, the internal consistency coefficients of the scale are determined as ,848 for the strategy sub-dimension, ,738 for the motivation sub-dimension, ,710 for the environment sub-dimension, ,705 for the planning sub-dimension.

## *2.3. Data Analysis*

The data obtained from the scales were recorded on the computer with the EXCEL format and analyzed using the SPSS 25 program.

The study examined the effects of extracurricular study habits and emotion regulation variables on lifelong learning tendencies of teacher candidates and established a model that explains this effect. Multiple regression analysis was used in this direction. In multiple regression analysis, it is important to select the variables to be included in the analysis and to put them in the sequence. According to this analysis, increasing the number of supported variables that the dependent variable describes will contribute to further understanding the measurement. However, as the structure will become more complex with excessive variables, a few variables are intended to explain the model (Kalayci, 2014). Multiple regression analysis has different methods for adding variables to the analysis. Since the addition of the predictive variables used in this study are not considered important in any order in the addition of the variables to the model, it is examined the common effect of all predictive variables on the predicted variable using the “Enter method”.

For the obtained data, the lost data was first removed from the data set and examined for the presence of extreme values. When the extreme values of the variables are examined, it is observed that the individuals numbered 78 and 10 in the reappraisal sub-dimension were extreme values and were removed from the analysis. Then, when the Mahalanobis distance was analyzed, the value (13,213) was below than the critical value and the data set was prepared for analysis.

After that, it was examined whether there are normality and multicollinearity problems from the assumptions required to carry out multi-variable analysis.

Table 2. Descriptive Statistics

	N	Mean	Skewness	Kurtosis
Lifelong learning tendencies	343	58,55	,436	-,388
Extracurricular Study Habits	343	62,01	-,464	,596
Emotion Regulation-Reappraisal	343	28,98	-,936	,718
Emotion Regulation-Suppression	343	17,61	-,093	-,916

Considering the kurtosis and skewness coefficients of each variable, their distribution is normal. Correlation was examined to show the relationship between the predictive variables and the predicted variable.

Table 3. Correlation between variables

	Lifelong learning tendencies	Extracurricular Study Habits	Emotion Regulation	
			Emotion Regulation-Reappraisal	Emotion Regulation-Suppression
Lifelong learning tendencies	1			
Extracurricular Study Habits	-,447**	1		
Emotion Regulation-Reappraisal	-,235**	-,037	1	
Emotion Regulation-Suppression	-,297**	,119*	,218**	1

The variables examined included correlations for two sub-dimensions of lifelong learning tendencies, extracurricular study habits and emotion regulation skills. The higher score for predictive variables is indicated as the opposite for the predicted variable. When the relations between the variables are examined, it is observed that there is a significant negative relationship between the predicted variable and predictive variables.

In order to examine the existence of multicollinearity problem, it is analyzed the relationship between scores in the sub-dimensions of the emotion regulation scale and scores on the extracurricular study habit scale. It was observed that there was no relationship between the extracurricular study habit scale and the reappraisal sub-dimension of the Emotion regulation scale ( $r = -.037, p > .000$ ), but there is a significant but small effect with the suppression sub-dimension ( $r = .119^*, p < .05$ ). In this case, it is an indication that predictive variables do not have multicollinearity problem and the tolerance and VIF values in Table 4 have been examined to analyze the multicollinearity problem.

Table 4. Tolerance and VIF Values

Tolerance	VIF
,982	1,019
,948	1,054
,936	1,068

The fact that VIF value is less than 10 and Tolerance values are greater than 0.2 (Field, 2005) according to Table 4 indicates that there is no multicollinearity problem. Furthermore, based on the association of variables' errors, the Durbin-Watson test (D-W = 1,759) was conducted to see if there was autocorrelation causing systematic errors and found that there was no autocorrelation.

A multiple linear regression analysis was conducted in the final data set with extreme values extracted and required examination completed.

### 3. Findings

The information about the model was established to examine whether extracurricular study habits and emotion regulation skills of university students on lifelong learning tendencies make sense and was analyzed by multiple regression analysis.

Table 5. F statistic showing the significance of the established model

Model		Sum of Squares	df	Mean Square	F	p
1	Regression	33408,415	3	11136,138	48,502	,000 <sup>b</sup>
	Residual	77834,442	339	229,600		
	Total	111242,857	342			

According to the F statistic showing the significance of the model set up in Table 5, the multiple linear regression analysis and the model established with the predicted variable of the predictive variables in the standard model are found to be significant [ $F(3-339) = 48.502, p < .05$ ]. After a thorough examination of the F statistics on whether the model is significant, the following table was examined to analyze the significance of the variables.

Table 6. B and Beta Correlation Coefficients and Significance Levels of the Variables

Model	Unstandardized Coefficients		Standardized Coefficients	t	p	R	R <sup>2</sup>
	B	Std. Error	Beta				
Constant	141,543	7,087		19,972	,000		
Extracurricular	-,921	,098	-,431	-9,390	,000		
Emotion Regu. Reap.	-,513	,116	-,207	-4,444	,000	,548	,30
Emotion Regu. Supp.	-,625	,147	-,200	-4,261	,000		

According to results of the multiple regressions on Table 6, 30 percent of the variation in the scale of lifelong learning tendencies is explained by extracurricular study habits and emotion regulation skills. As shown in the table, the constant term was found as 141,543. Thus, the lifelong learning tendency of an individual who does not have extracurricular study habit or emotion regulation is 141.543. The coefficient of extracurricular study habits was -.921. This value shows that the change in a unit's extracurricular study habit will lead to a reduction in lifelong learning tendency -.921 units. Similarly, a unit change in the reappraisal sub-dimension of the Emotion Regulation scale will cause a change of -.513 units, and a change in the suppression sub-dimension of -.625 units in the lifelong learning tendency. In other words, the predictive variables in the analysis are significant in predicting the lifelong learning tendency and contribute to the estimation. The equation resulting from the analysis is as follows:

$$\text{Lifelong Learning Tendency} = 141,543 - 0,921 * \text{Extracurricular Study Habit} - ,513 * \text{Reappraisal} - ,625 * \text{Suppression}$$

Thus, as individuals' extracurricular study habits and skills related to sub-dimensions in emotion regulation increase, their scores for lifelong learning tendencies will decrease. However, it is possible to say that their tendencies have increase as lower scores in the lifelong learning tendencies show that the individual has a high lifelong learning tendency.

#### 4. Conclusion, Discussion, Recommendations

Lifelong learning is about the individual's inclusion of many factors other than herself/himself and herself/himself in the learning process. Two of the important parameters that will contribute to the individual's learning process can be expressed as emotion regulation and extracurricular study habits. In this study, the effect of these two variables on lifelong learning tendencies was examined, and as a result, it was found that emotion regulation and extracurricular study habits predicted lifelong learning tendency. The increase in emotion regulation strategies and extracurricular study habits decreases the scores of lifelong learning tendency and thus positively affects lifelong learning tendencies. It is a necessity for the individual, who is the building block of social development, to develop his / her constructive, investigative and directing skills and to reach the power of the society to play a role in its development efforts. In this context, it is very important that an individual consciously realizes herself/himself, continuously improves herself/himself in cognitive, affective and psychomotor characteristics, to reach a level that distinguishes the important from the insignificant ones and the beneficiary from the ineffective ones and that can establish a balance (Verzeletti, Zammuner, Galli and Agnoli, 2016; Budak, 2009). When appropriate regulation strategies were used in the literature, it was established that there was a positive relationship between conscious

awareness and emotion regulation (Kısmetoglu, 2019). Considering that individuals who have problems in emotion regulation experience narrow interpersonal problems and anger problems, it can be thought that pre-service teachers with emotional regulation difficulties will have negative reflections on their self-control and lifelong learning tendencies. It has been stated that negative emotional reactivity causes especially decreased attention, focus problems and destructive behaviors (Adrian et al., 2011; Wählstedt et al., 2019 as cited in Yumusak, 2019). In this context, the increase in emotion regulation skill level plays an increasing role in increasing lifelong learning tendency. For this reason, in order to increase lifelong learning tendencies, training should be given to individuals to gain awareness of their emotions and the ability to regulate their emotions.

In addition, as the habit of extracurricular study supports self-learning in a systematic and planned manner, it also supports lifelong learning tendency positively (KidsHealth, 2010; Pascarella & Terenzini, 2005) and contributes to academic success (Adeyemo, 2010; Marsh & Kleitman, 2002). For this reason, it is also very important for pre-service teachers to acquire and develop their simultaneous or asynchronous study habits in accordance with their individual differences. It should not be thought that the individual's self-directed learning and studying habits only affect their individual development, but the social aspect of this habit should be focused. The individual, who gains the habit of extracurricular work, makes plans for study, develops strategies and realizes them, will also increase his experience in extracurricular work and lifelong learning. With this experience, she/he will take stronger steps in career choices, self-assessment levels (Pascarella & Terenzini, 2005), self-perception levels (Daley & Leahy, 2003) and achieving goals. With the study, the relationships between emotion regulation, extracurricular study habits and lifelong learning tendency were analyzed in line with the information obtained from students at X University Faculty of Education. This analysis can be carried out with different samples, or it can be re-examined by adding different variables to the model.

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