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Message from the Editor-in-Chief

Dear Colleagues,

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November 2020
Prof. Dr. Aytekin ISMAN
Sakarya University

Editorial Board

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LIFELONG LEARNING TENDENCIES OF VOCATIONAL SCHOOL STUDENTS

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Özet
Meslek yüksekokulu öğrencilerinin yaşam boyu öğrenme eğilimlerinin araştırıldığı bu çalışmada nicel araştırma yöntemi benimsenmiştir. Araştırma deseni, karşılaştırma araştırması ile betimsel araştırmadır. Çalışmada Tokat ilinde bulunan 13 meslek yüksekokulunda öğrenim gören 627 öğrenciden veri toplanmıştır. Veri toplama aracı 27 madde ve dört boyuttan oluşan Yaşam Boyu Öğrenme Eğilimleri Ölçeğidir. Ölçeğin boyutları; motivasyon, sebat, öğrenmeyi düzenleme ve meraktır. Bulgular, meslek yüksekokulu öğrencilerinin orta seviyenin üstünde bir yaşam boyu öğrenme eğilimleri olduğunu göstermektedir. Boyutlar arasında en yüksek ortalama motivasyona en düşük ortalama merak boyutuna aittir. Cinsiyet, yaşam boyu öğrenme toplam ölçek ortalamasını farklılaştıran bir değişkendir. Kız öğrencilerin yaşam boyu öğrenme eğilimleri erkek öğrencilerden yüksektir. Ayrıca öğrenmeyi düzenleme ve merak boyutlarında da kız öğrenciler lehine anlamlı fark saptanmıştır. Sınıf düzeyi, öğrenmeyi düzenleme boyutu için anlamlı farklılık oluşturan bir değişkendir. Birinci sınıf öğrencileri ikinci sınıf öğrencilerinden daha fazla öğrenmeyi düzenleme eğilimine sahiptir. Öğrenim görülen bölüm, yaşam boyu öğrenme motivasyon eğilimlerini farklılaştırmaktadır. Teknik bilimler alanında öğrenim gören öğrenciler en yüksek motivasyon ortalamasına, sağlık bilimleri alanındaki öğrenciler ise en düşük motivasyon ortalamasına sahiptir. Aile gelir durumu, anne eğitim düzeyi ve baba eğitim düzeyi yaşam boyu öğrenme toplam ölçeği ile boyutları açısından anlamlı fark oluşturmamıştır. Öğrencilerin mezun olduktan sonraki planları merak boyutu için anlamlı bir değişkendir. Eğitimlerine devam etmek isteyen öğrencilerin merak ortalamaları işe girmek isteyen öğrencilere göre anlamlı derecede yüksektir.
Anahtar Kelimeler: Yaşam boyu öğrenme, motivasyon,

Abstract
In this study, which investigated lifelong learning tendencies of vocational school students, quantitative research method was adopted. The research designs are comparative research and descriptive research. Data were collected from 627 students from 13 vocational schools in Tokat. Data collection tool is Lifelong Learning Tendency Scale consisting of 27 items and four dimensions. Dimensions of the scale are motivation, persistence, self-regulation and curiosity. The findings show that vocational school students have a lifelong learning tendency above the intermediate level. Among the dimensions, motivation has the highest mean while curiosity has the lowest mean. Gender is a variable that differentiates the lifelong learning total scale mean. Female students have higher lifelong learning tendencies than males. In addition, a significant difference was found in favor of female students in terms of self-regulation and curiosity. Class level is a variable that makes a significant difference for self-regulation dimension. First year students tend to be more self-regulated than second years. The major, differentiates lifelong learning motivation tendencies. The students who study in the technical sciences have the highest motivation mean, while the students study in the health sciences have the lowest. Family income, mother education level and father education level did not make a significant difference in terms of lifelong learning total scale and its dimensions. Students' plans after graduation is a significant variable for the curiosity dimension. The students who want to pursue their education have significantly higher curiosity mean than the students who want to work.

Introduction

The effects of scientific, technological, and cultural changes on human life, the rapid differentiation of information and the prolongation of lifespan compared to the past force people to be in a constant state of learning. Education is not limited to schools or specific periods anymore. Scientific studies are ongoing for the education of individuals of all ages and characteristics. This perspective, which can be explained under the concept of lifelong learning is defined as all learning activities carried out throughout life in order to improve the knowledge, skills and competencies of individuals related to their professional, social and personal lives through formal or informal education. As can be understood from the definition, with lifelong learning social integration, active citizenship, personal development, self-sustainability, competitiveness, and employability are aimed (Coşkun & Demirel, 2012; Lifelong Learning Platform, 2016; Uzunboylu & Hürsen, 2011).

Lifelong learning became one of the UNESCO policies in the 1970s and OECD policies in the 1980s and it started to gain importance among scientists studying in education. The most important reason for the need for lifelong learning was insufficient education provided in schools so the idea that the missions of the schools must change came forward. Today, lifelong learning is still the main paradigm of education systems and reforms in the international arena. UNESCO's (Rethinking Education: Towards a Global Common Good-2015) and United Nations' (2030 Agenda for Sustainable Development) reports are based on providing inclusive and quality

education and promoting lifelong learning opportunities for all. All fields, sectors and ages are included in the educational objectives. In Turkey, however the idea of lifelong learning has become widespread in the 2000s. General Directorate of Lifelong Learning was established under Ministry of National Education. The priorities determined in the action plan of the Directorate are as follows: Creating lifelong learning culture and awareness in the society, increasing lifelong learning opportunities and provision, increasing access to lifelong learning, developing a lifelong learning guidance system, developing a system for evaluating previous learning, developing a lifelong learning monitoring and evaluation system. (General Directorate of Lifelong Learning, 2014; Güleç, Çelik & Demirhan, 2012; Lifelong Learning Platform, 2016).

General purposes of lifelong learning are personal development, social integration, and economic growth. Personal development is based on the principles such as focusing on individuals, shaping education according to their interests and needs, granting individuals the right to choose and initiate more, improving their life standards and maximizing their capacities. Social integration focuses on ensuring equal opportunities for everyone to benefit from lifelong learning rather than staying with a limited group, and strengthening democracy. Economic growth, on the other hand, has the objectives of supporting skill development, providing appropriate conditions and opportunities for skill development, and supporting initiatives that will increase economic development (State Planning Organization, 2001).

In the European Reference Framework (2007), it has defined eight basic competencies related to lifelong learning. These are: communication in mother tongue, communication in foreign languages, basic competence in mathematics, science and technology, digital competence, learning to learn, social and civic competences, entrepreneurship, cultural awareness and expression. All these qualifications are equally important, and dimensions of knowledge, skills and attitudes are addressed for each. The knowledge dimension includes events, shapes, concepts, ideas and theories. The skill dimension refers to the capacity to run processes and deliver meaningful knowledge. Attitudes are related to the tendency to act or react according to ideas, people, or situations. Apart from these, values, thoughts and beliefs are considered. In addition, high-level cognitive skills such as critical thinking, creativity, initiative, problem solving, risk assessment and decision making are also associated with key competencies (European Commission, 2018).

In addition to the general purposes of lifelong learning and competencies related to lifelong learning, the principles of lifelong learning have also been determined in the literature. Accordingly, lifelong learning adopts the principles of ending encyclopedic knowledge, ending illiteracy, ending the transfer of information in traditional ways, ending excessive specialization, ending traditional education methods at all levels, and democratizing education (Turkey State Planning Organization, 2001).

In order for life-long learning to be successful, certain conditions must be met. Voluntary participation is the most important of these. The willingness of individuals to learn will increase their success rate. Active participation is another variable. The active participation of individuals in learning and applying what they have learned will also increase their self-confidence. Past experience is a factor that affects new learning. Appropriate methods and materials should be determined by considering what and to what extent the learners know. The learning climate is another factor. Physically and psychologically appropriate and supportive environments will increase the quality of life-long learning. Finally, determining how learners learn best will play a significant role in guiding an effective lifelong learning process (Gravani, 2012).

Lifelong learning has become a necessity rather than a choice or an advantage. It is not possible for individuals who do not improve and update themselves to be successful in their business or social lives. For this reason, it is considered that lifelong learning is a subject that needs to be studied carefully.

Higher education is the last step of formal education. There is no guiding on how the learning would continue after this step. It is important for individuals who graduate from higher education to have knowledge about lifelong learning in order to adapt to their professional lives, environment and changing conditions (Karaman & Aydoğmuş, 2018). Based on this idea, the tendencies of vocational school students towards lifelong learning were examined in the study.

In the literature, there are a limited number of studies on the lifelong learning tendencies of vocational school students, and the samples are restricted with one or two schools in these studies. This research is important as it has a large sample (n=627) and its data was collected from 13 different vocational schools in Tokat. It is also important that students gain awareness of the concept of lifelong learning.

Research Purpose

The purpose of this study is to examine the lifelong learning tendencies of vocational school students and to investigate whether some demographic variables differentiate their lifelong learning tendencies. Research questions are below:

1. What are the lifelong learning tendencies of vocational school students?
2. Do vocational school students' lifelong learning tendencies differ according to the following demographic variables?
    a. Gender
    b. Grade

c. Major
d. Family income
e. Mother education level
f. Father education level
g. Plans after graduation

Method

Research Design

The quantitative research method has been adopted in the research. As research designs comparative research and descriptive research were used. The sample was defined and student tendencies were revealed by using the descriptive statistics. It was investigated whether the tendencies differ in terms of demographic variables through the comparative research (Gliner, Morgan & Leech, 2009).

Sample

The population of this research consists of the students studying at vocational schools in Tokat. The sample was created using convenience sampling technique which is a type of non-probability sampling. Data were collected from 661 students, but 34 participants were excluded from the study due to missing information in the data collection tool. Thus, the sample consisted of 627 participants. Demographic characteristics of the sample are presented in Table 1 and Table 2.

Table 1: Demographic characteristics of the sample

Variable	Variable Levels	*f*	%
Gender	Female	331	52.8
	Male	296	47.2
	Total	627	100
Grade	1. Grade	336	53.6
	2. Grade	291	46.4
	Total	627	100
Vocational School (VS)	Adalet VS	37	5.9
	Almus VS	76	12.1
	Artova VS	83	13.2
	Erbaa VS	51	8.1
	Erbaa Health VS	48	7.7
	Niksar Social Sciences VS	81	12.9
	Niksar Technical Sciences VS	19	3
	Pazar VS	96	15.3
	Reşadiye VS	30	4.8
	Tokat Technical VS	17	2.7
	Turhal VS	14	2.2
	Turhal Health VS	21	3.3
	Zile VS	54	8.6
	Total	627	100
Family Income	0-2000 ₺	348	55.5
	2001-3000 ₺	156	24.9
	3001-4000 ₺	67	10.7
	4001-5000 ₺	36	5.7
	5001 ₺ and more	20	3.2
	Total	627	100
Mother Education Level	Illiterate	64	10.2
	Primary School	377	60.1
	Secondary School	124	19.8
	High School	55	8.8
	Graduate	4	.6
	Post-graduate	3	.5
	Total	627	100
Father Education Level	Illiterate	13	2.1
	Primary School	275	43.9
	Secondary School	180	28.7
	High School	120	19.1
	Graduate	36	5.7
	Post-graduate	3	.5
	Total	627	100
Future plans	Wants to work	398	63.5

As can be seen in Table 1, approximately 53% (*n* = 331) of the sample are girls and 47% (*n* = 296) are boys while 54% (*n* = 336) are first year students, 46% (*n* = 291) are second year students. The most data were collected from Pazar (*n* = 96, 15%), Artova (*n* = 83, 13%), Niksar Social Sciences (*n* = 81, 13%) and Almus (*n* = 76, 12%) vocational schools. The family income of the majority of the participating students (*n* = 348, 55.5%) is between 0-2000 ₺. Mother and

Wants to pursue his/her education	145	23.1
Other	84	13.4
Total	627	100

father education levels of the most of the students are primary school (n = 377, 60%; n = 275, 44%). While the majority of the students (n = 398, 63.5%) want to work after graduation, 23% (n = 145) of them want to pursue their education.

Table 2: Majors of the students

Variable	Variable Levels	Variable Sub-Levels	*f*	%
Major	Social Sciences	Banking and Insurance Penal Execution and Security Services Call Center Services Child Development Public Relations and Advertising Law Office Management and Secretariat Business Administration Logistics Finance Accounting and Tax Practices Postal Services Local Governments	304	48.5
	Technical Sciences	Computer Programming Graphic Design Occupational Health and Safety Chemistry and Chemical Processing Technology Architecture and Restoration Private Security and Property Protection Civil Defense and Firefighting Textile Technology	162	25.8
	Health Sciences	Physiotherapy First and Immediate Aid Medical Promotion and Marketing Laboratory Technology Laborant and Veterinary Health Disabled Care and Rehabilitation	161	25.7
		Total	627	100

As can be seen in Table 2, the majors of the students are grouped as social sciences, technical sciences and health sciences. 48.5% (n=304) of the students study in 12 different departments in the field of social sciences while 25.8% (n=162) of them study in eight different departments in the field of technical sciences, and 25.7% (n=161) of them study in six different departments in the field of health sciences.

Data Collection Tool

"Lifelong Learning Tendencies Scale" developed by Coşkun (2009) was used as data collection tool. The scale consists of 27 items and four dimensions. Dimensions are motivation (6 items), persistence (6 items), self-regulation (6 items) and curiosity (9 items). In the scale, all items in ‘‘motivation’’ and ‘‘persistence’’ dimensions were coded positive, while all items in ‘‘self-regulation’’ and ‘‘curiosity’’ were coded negative. The scale was prepared in six-point Likert type (1: Fits completely, 6: Does not fit at all). Cronbach's alpha reliability coefficient (α = .89) on the sample in which the scale was developed is high enough and the researcher concluded that the scale was also valid according to the confirmatory factor analysis.

In this study, items related to motivation and persistence dimensions were reverse coded at the data analysis stage. Thus, high scores in all dimensions indicate high lifelong learning tendencies. The Cronbach alpha reliability coefficient for this research is α = .87.

Data Collection Process

Using Google Forms, the researcher organized the data collection tool in a form that can be filled on-line. Then, all faculty members working in vocational schools were contacted via e-mail, the study was introduced and the link of the data collection tool was sent. They shared the link with their students. Voluntary students filled out the form. Data were collected in November and December 2019.

Data Analysis

Frequency, percentage, minimum, maximum, mean and standard deviation statistics were used to introduce the

sample and reveal lifelong learning tendencies. Whether lifelong learning tendencies differ according to demographic data was measured by t-test and ANOVA. Since the sample size is sufficient (n>100) according to the central limit theorem, the assumptions of normality and homogeneity were accepted met (see Dimitrov, 2010).

Results

Lifelong Learning Tendencies of Vocational School Students

Table 3 shows lifelong learning tendency statistics of vocational school students.

Table 3: Descriptive statistics of lifelong learning tendency scale

	N	Min.	Max.	$\bar{X}$	*SD*
Total Scale	627	1.48	6.00	4.44	.81
Motivation	627	1.00	6.00	5.19	.80
Persistence	627	1.00	6.00	4.63	.97
Self-regulation	627	1.00	6.00	4.18	1.37
Curiosity	627	1.00	6.00	3.97	1.29

According to Table 3, the mean of the lifelong learning tendency scale is ($\bar{X}$ = 4.44, *SD* = .81). It can be said that students' lifelong learning tendencies is above the middle. Motivation has the highest mean among the four dimensions ($\bar{X}$ = 5.19, *SD* = .80). Motivation is followed by persistence ($\bar{X}$ = 4.63 *SD* = .97) and self-regulation ($\bar{X}$ = 4.18, *SD* = 1.37). The dimension with the lowest mean is curiosity ($\bar{X}$ = 3.97, *SD* = 1.29).

Lifelong Learning Tendencies of Vocational School Students by Gender

Whether lifelong learning tendencies of vocational school students differ according to their gender was tested with the t test. Results are presented in Table 4.

Table 4: Lifelong learning tendencies according to gender

Scale Dimensions	Groups	*N*	$\bar{X}$	*SD*	$SE_{\bar{X}}$	*t* -test		
						t	*df*	*p*
Total Scale	Female	331	4.58	.77	.04	4.58	625	.00
	Male	296	4.29	.83	.05			
Motivation	Female	331	5.25	.73	.04	1.95	625	.052
	Male	296	5.13	.87	.05			
Persistence	Female	331	4.67	.95	.05	.831	625	.40
	Male	296	4.60	1.0	.06			
Self-regulation	Female	331	4.37	1.28	.07	3.52	625	.00
	Male	296	3.99	1.44	.08			
Curiosity	Female	331	4.21	1.19	.07	4.87	625	.00
	Male	296	3.72	1.35	.08			

As can be seen in Table 4, there is a statistically significant difference between male and female students' lifelong learning total scale means (t = 4.58 p <.05). The total scale mean of female students ($\bar{X}$ = 4.58) is higher than males ($\bar{X}$ = 4.29). It can be concluded that female students have higher lifelong learning tendencies than males.

The means of self-regulation ($\bar{X}_{female}$ = 4.37, $\bar{X}_{male}$ = 3.99) and curiosity ($\bar{X}_{female}$ = 4.21, $\bar{X}_{male}$ = 3.72) dimensions differ significantly in favor of female students (t = 3.52, p <.05; t = 4.87, p <.05). On the other hand, in terms of motivation and persistence mean scores ($\bar{X}_{female}$ = 5.25, $\bar{X}_{male}$ = 5.13; $\bar{X}_{female}$= 4.67, $\bar{X}_{male}$ = 4.60) there are not statistically significant differences between females and males (t = 1.95, p =.052; t = .83, p =.40).

Lifelong Learning Tendencies of Vocational School Students by Grade

T-test results of lifelong learning tendencies of vocational school students according to their grades are presented in Table 5.

Table 5: Lifelong learning tendencies according to grade

Scale Dimensions	Groups	*N*	$\bar{X}$	*SD*	$SE_{\bar{X}}$	*t* -test		
						t	*df*	*p*
Total scale	1.grade	336	4.48	.80	.04	1.34	625	.18
	2.grade	291	4.39	.82	.05			
Motivation	1.grade	336	5.19	.76	.04	.031	625	.97
	2.grade	291	5.19	.85	.05			
Persistence	1.grade	336	4.58	.96	.05	-1.56	625	.12
	2.grade	291	4.70	.99	.06			

Self-regulation	1.grade	336	4.29	1.29	.07	2.02	625	.04
	2.grade	291	4.07	1.44	.08			
Curiosity	1.grade	336	4.07	1.21	.06	1.87	625	.06
	2.grade	291	3.87	1.38	.08			

Table 5 shows a significant difference between the first and second grades' self-regulation means (t = 2.02, p <.05). First grades have a significantly higher self-regulation mean ($\bar{X}$ = 4.29) than second grades ($\bar{X}$ = 4.07).

There are not statistically significant differences between first and second grades in terms of total scale mean, and motivation, persistence and curiosity dimensions (t = 1.34, p =.18; t =.031, p =.97; t = -1.56, p =.12; t = 1.87, p = .06).

Lifelong Learning Tendencies of Vocational School Students by Major

One-way ANOVA results of lifelong learning tendencies of vocational school students according to their majors are presented in Table 6.

Table 6: Lifelong learning tendencies according to major

Scale Dimensions	Groups	*N*	$\bar{X}$	*SD*	*SE*	ANOVA	*SS*	*df*	*MS*	*F*	*p*
Total scale	Social sci.	304	4.45	.79	.04	Between groups	.121	2	.06		
	Technical sci.	162	4.42	.82	.06	Within groups	410.6	624	.65	.09	.91
	Health sci.	161	4.43	.83	.06	Total	410.8	626			
	Total	627	4.44	.81	.03						
Motivation	Social sci.	304	5.22	.75	.04	Between groups	5.07	2	2.53	3.99	.01
	Technical sci.	162	5.27	.80	.06	Within groups	396.0	624	.63		
	Health sci.	161	5.04	.87	.06	Total	401.1	626			
	Total	627	5.19	.80	.03						
Persistence	Social sci.	304	4.66	.99	.05	Between groups	4.9	2	2.47	2.60	.07
	Technical sci.	162	4.73	.85	.06	Within groups	593.7	624	.95		
	Health sci.	161	4.49	1.04	.08	Total	598.7	626			
	Total	627	4.63	.97	.03						
Self-regulation	Social sci.	304	4.18	1.39	.07	Between groups	3.01	2	1.50	.8	.44
	Technical sci.	162	4.09	1.49	.11	Within groups	1173.0	624	1.88		
	Health sci.	161	4.28	1.17	.09	Total	1176.0	626			
	Total	627	4.18	1.37	.05						
Curiosity	Social sci.	304	3.98	1.28	.07	Between groups	3.04	2	1.52	.9	.40
	Technical sci.	162	3.87	1.39	.10	Within groups	1042.4	624	1.67		
	Health sci.	161	4.07	1.18	.09	Total	1045.4	626			
	Total	627	3.97	1.29	.05						

As can be seen in Table 6, there are not statistically significant differences between the major groups in terms of total scale mean, and persistence, self-regulation, and curiosity dimensions (F = .09, $df_{2, 624}$, p = .91; F = 2.60, $df_{2, 624}$, p = .07; F = .8, $df_{2, 624}$, p =.44; F = .9, $df_{2, 624}$, p = .40). On the other hand, a statistically significant difference was found between motivation means of the students according to their major (F = 3.99, $df_{2, 624}$, p <,05). Students studying in technical sciences have the highest mean ($\bar{X}$ = 5.27) whereas students studying in health sciences have the lowest ($\bar{X}$ = 5.04). Tukey follow-up analysis has been conducted to determine which groups were different from each other. Results are presented in Table 7.

Table 7: Tukey follow-up analysis results regarding to major

(I) Major	*(J) Major*	*Mean difference (I-J)*	*SE*	*p*
Social sciences	Technical sci.	-.050	.077	.79
	Health sciences	.183*	.077	.04
Technical sci.	Social sciences	.050	.077	.79
	Health sciences	.233*	.088	.02
Health sciences	Social sciences	-.183*	.077	.04
	Technical sci.	-.233*	.088	.02

According to Table 7, concerning motivation means, significant differences were found between social sciences and health sciences in favor of social sciences, and between technical sciences and health sciences in favor of technical sciences (p < .05; p < .05). There is not a significant difference between social sciences and technical sciences groups (p = .79).

Lifelong Learning Tendencies of Vocational School Students by Family Income

As presented in Table 1, the family income variable consists of five groups (0-2000 ₺, 2001-3000 ₺, 3001-4000 ₺, 4001-5000 ₺ and 5001 ₺ and above). However, the number of participants is not enough in two groups (4001-5000 ₺, n = 36; 5001 ₺ and above, n = 20) compared to the others. Therefore, before the analysis, these two groups were combined with the 3001-4000 ₺ group, and the new group was titled as 3001 ₺ and above (n = 123). ANOVA was conducted over the three-group family income variable. Results are presented in Table 8.

Table 8: Lifelong learning tendencies according to family income

Scale dimensions	Groups	*N*	$\bar{X}$	*SD*	*SE*	ANOVA	*SS*	*df*	*MS*	*F*	*p*
Total scale	0-2000 ₺	348	4.45	.78	.04	Between groups	.21	2	.10		
	2001-3000 ₺	156	4.41	.79	.06	Within groups	410.5	624	.65	.16	.84
	3001 ₺ and +	123	4.44	.90	.08	Total	410.8	626			
	Total	627	4.44	.81	.03						
Motivation	0-2000 ₺	348	5.24	.72	.03	Between groups	2.07	2	1.03	1.62	.19
	2001-3000 ₺	156	5.15	.81	.06	Within groups	399.0	624	.64		
	3001 ₺ and +	123	5.10	.95	.08	Total	401.1	626			
	Total	627	5.19	.80	.03						
Persistence	0-2000 ₺	348	4.71	.87	.04	Between groups	5.48	2	2.74	2.88	.057
	2001-3000 ₺	156	4.49	1.11	.08	Within groups	593.2	624	.95		
	3001 ₺ and +	123	4.60	1.05	.09	Total	598.7	626			
	Total	627	4.63	.97	.03						
Self-regulation	0-2000 ₺	348	4.11	1.38	.07	Between groups	4.58	2	2.29	1.22	.29
	2001-3000 ₺	156	4.29	1.34	.10	Within groups	1171.4	624	1.87		
	3001 ₺ and +	123	4.27	1.36	.12	Total	1176.0	626			
	Total	627	4.18	1.37	.05						
Curiosity	0-2000 ₺	348	3.98	1.25	.06	Between groups	.45	2	.22	.13	.87
	2001-3000 ₺	156	3.93	1.34	.10	Within groups	1045.0	624	1.67		
	3001 ₺ and +	123	4.01	1.34	.12	Total	1045.4	626			
	Total	627	3.97	1.29	.05						

According to Table 8, there are not significant differences between income groups in terms of total scale and scale dimensions' means (F = .16, $df_{2, 624}$, p = .84; F = 1.62, $df_{2, 624}$, p = .19; F = 2.88, $df_{2, 624}$, p = .057; F = 1.22, $df_{2, 624}$, p = .29; F = .13, $df_{2, 624}$, p = .87).

Lifelong Learning Tendencies of Vocational School Students by Mother Education Level

As presented in Table 1, mother education level variable consists of six groups (illiterate, primary school, secondary school, high school, graduate, postgraduate). However, the number of participants in two groups (graduate, n = 4 and postgraduate, n = 3) is not enough compared to the others. Therefore, these two groups were combined with the high school group and a new group was composed as high school and above (n = 62). ANOVA was carried out with four-group mother education level variable. Results are presented in Table 9.

Table 9: Lifelong learning tendencies according to mother education level

Scale dimensions	Groups	*N*	$\bar{X}$	*SD*	*SE*	ANOVA	*SS*	*df*	*MS*	*F*	*p*
Total scale	Illiterate	64	4.47	.80	.10	Between groups	1.6	2	.53		
	Primary sch.	377	4.42	.80	.04	Within groups	409.2	623	.65	.81	.48
	Secondary sch.	124	4.52	.86	.07	Total	410.8	626			
	High sch. and +	62	4.33	.73	.09						
	Total	627	4.44	.81	.03						
Motivation	Illiterate	64	5.29	.66	.08	Between groups	.94	2	.31	.49	.68
	Primary sch.	377	5.18	.78	.04	Within groups	400.1	623	.64		
	Secondary sch.	124	5.18	.90	.08	Total	401.1	626			
	High sch. and +	62	5.13	.80	.10						
	Total	627	5.19	.80	.03						
Persistence	Illiterate	64	4.75	.78	.09	Between groups	4.67	2	1.55	1.63	.18
	Primary sch.	377	4.62	1.00	.05	Within groups	594.0	623	.95		
	Secondary sch.	124	4.73	.97	.08	Total	598.7	626			
	High sch. and +	62	4.43	.97	.12						
	Total	627	4.63	.97	.03						
Self-regulation	Illiterate	64	4.22	1.42	.17	Between groups	4.03	2	1.34	.71	.54
	Primary sch.	377	4.18	1.36	.07	Within groups	1172.0	623	1.88		
	Secondary sch.	124	4.28	1.37	.12	Total	1176.0	626			
	High sch. and +	62	3.97	1.37	.17						
	Total	627	4.18	1.37	.05						
Curiosity	Illiterate	64	3.91	1.34	.16	Between groups	2.24	2	.74	.44	.72
	Primary sch.	377	3.95	1.25	.06	Within groups	1043.2	623	1.67		
	Secondary sch.	124	4.09	1.39	.12	Total	1045.4	626			
	High sch. and +	62	3.98	1.25	.15						
	Total	627	3.97	1.29	.05						

As can be seen in Table 9, there are not significant differences between mother education level groups in terms of total scale and scale dimensions' means (F = .81, $df_{2, 623}$, p = .48; F = .49, $df_{2, 623}$, p = .68; F = 1.63, $df_{2, 623}$, p = .18; F = .71 $df_{2, 623}$, p = .54; F = .44 $df_{2, 623}$, p = .72).

Lifelong Learning Tendencies of Vocational School Students by Father Education Level

As presented in Table 1, the father education level variable consists of six groups (illiterate, primary school, secondary school, high school, graduate, postgraduate). However, the number of participants in three groups (illiterate, n = 13; graduate, n = 36; postgraduate n = 3) is not enough compared to the other groups. For this reason, while illiterate group was combined with primary school group, graduate and postgraduate groups were combined with the high school group. In this way, two new groups which are named ''primary school or below'' (n = 288) and ''high school or above'' (n = 159) were formed. ANOVA was conducted on three-group father education level variable. Results are presented in Table 10.

Table 10: Lifelong learning tendencies according to father education level

Scale dimensions	Groups	*N*	$\bar{X}$	*SD*	*SE*	ANOVA	*SS*	*df*	*MS*	*F*	*p*
Total scale	Primary sch. or -	288	4.42	.80	.04	Between gro.	.46	2	.23		
	Secondary sch.	180	4.48	.82	.06	Within gro.	410.3	624	.65	.35	.70
	High sch. or +	159	4.42	.80	.06	Total	410.8	626			
	Total	627	4.44	.81	.03						
Motivation	Primary sch. or -	288	5.19	.80	.04	Between gro.	.12	2	.06	.10	.90
	Secondary sch.	180	5.20	.86	.06	Within gro.	401.0	624	.64		
	High sch. or +	159	5.17	.72	.05	Total	401.1	626			
	Total	627	5.19	.80	.03						
Persistence	Primary sch. or -	288	4.67	.92	.05	Between gro.	3.21	2	1.60	1.68	.18
	Secondary sch.	180	4.69	.93	.06	Within gro.	595.5	624	.95		
	High sch. or +	159	4.51	1.11	.08	Total	598.7	626			
	Total	627	4.63	.97	.03						
Self-regulation	Primary sch. or -	288	4.13	1.40	.08	Between gro.	1.86	2	.93	.49	.61
	Secondary sch.	180	4.23	1.38	.10	Within gro.	1174.2	624	1.88		
	High sch. or +	159	4.24	1.30	.10	Total	1176.0	626			
	Total	627	4.18	1.37	.05						
Curiosity	Primary sch. or -	288	3.93	1.27	.07	Between gro.	1.08	2	.54	.32	.72
	Secondary sch.	180	4.03	1.33	.09	Within gro.	1044.3	624	1.67		
	High sch. or +	159	3.99	1.28	.10	Total	1045.4	626			
	Total	627	3.97	1.29	.05						

As can be seen in Table 10, there are not significant differences between father education level groups in terms of total scale and scale dimensions' means (F = .35, $df_{2, 623}$, p = .70; F = .10, $df_{2, 623}$, p = .90; F = 1.68, $df_{2, 623}$, p = .18; F = .49, $df_{2, 623}$, p = .61; F = .32, $df_{2, 623}$, p = .72).

Lifelong Learning Tendencies of Vocational School Students by Future Plans

As presented in Table 1, future plans variable consists of three groups (wants to work, wants to pursue his/her education, and other). Students who want to get a job or start a business in any public or private institution after graduation formed the first group. Students who want to take the vertical transfer exam (DGS) or plan to take the university exam again were included in the second group. The other students who have not any plan yet, who want to do military duty, who want to get married or who want to trip in Turkey or abroad were consisted of the third group. While analyzing "future plans" variable, third group (other, n = 84) was excluded, and first and second groups were compared. T test analysis for this variable was conducted on 543 participants. Results are presented in Table 11.

Table 11: Lifelong learning tendencies according to future plans

Scale dimension	Groups	*N*	$\bar{X}$	*SD*	$SE_{\bar{X}}$	*t* -test *t*	*df*	*p*
Total scale	Getting a job	398	4.41	.81	.04	1.23	541	.21
	Academic education	145	4.51	.84	.07			
Motivation	Getting a job	398	5.20	.78	.04	.014	541	.98
	Academic education	145	5.20	.90	.07			
Persistence	Getting a job	398	4.62	.98	.04	-.330	541	.74
	Academic education	145	4.66	.98	.08			
Self-regulation	Getting a job	398	4.19	1.36	.06	.091	541	.92
	Academic education	145	4.18	1.42	.11			
Curiosity	Getting a job	398	3.89	1.29	.06	-2.24	541	.02
	Academic education	145	4.17	1.31	.10			

As can be seen in Table 11, a significant difference was found in terms of curiosity means between two groups in favor of students who want to progress academically (t = -2.24 p < .05).
There are not significant differences between two groups in terms of total scale mean, and motivation, persistence and self-regulation means (t = 1.23, p = .21; t = .014, p = .98; t = -.33, p = .74; t = .091, p = .92).

Conclusion

In this study, in which the lifelong learning tendencies of vocational school students and the demographic factors that may affect these tendencies were investigated, data were collected from 627 students studying at 13 vocational schools in Tokat. Lifelong Learning Tendencies Scale, consisting of 27 items and four dimensions, was used as data collection tool. Dimensions of the scale are motivation, persistence, self-regulation, and curiosity. Findings show that vocational school students have a lifelong learning tendency above the medium level. While motivation has the highest mean among the scale dimensions, curiosity has the lowest. In literature, there are some studies conducted with different samples supporting these results. Karakuş (2013), examined lifelong learning competencies of vocational school students and found that students have a high-level lifelong learning tendency. Özçiftçi and Çakır (2015), studied with primary school teachers and reached the conclusion that teachers have a high level of lifelong learning tendency. They also found that among the scale dimensions motivation has the highest mean and curiosity has the lowest. Bulaç and Kurt (2019) found that pre-service teachers' lifelong learning tendencies are above the medium. Motivation has the highest and curiosity has the lowest mean in their study too.
According to the results, gender is a variable that differentiates the lifelong learning total scale mean. The lifelong learning tendencies of female students are higher than males. Also, significant differences were found in favor of female students for self-regulation and curiosity dimensions. In terms of motivation and persistence, the means of female students are higher than males, but these differences are not statistically significant. Similar to these results, Özçiftçi and Çakır (2015) concluded that gender differentiates the total scale mean of lifelong learning. Researchers stated that female teachers have higher lifelong learning tendencies than male teachers. Coşkun (2009), who investigated lifelong learning tendencies of university students, revealed that the lifelong learning tendencies of female students are higher than males. Çetin and Çetin (2017) and Şahin, Sarıtaş, and Çatalbaş (2017) stated that the lifelong learning tendencies of female teacher candidates is higher than males. Since women generally spend a shorter time in formal education than men, they may be more prone to lifelong learning (Jenkins, 2004 cited in Diker-Coşkun & Demirel, 2012).
Grade is a variable that makes a significant difference for the dimension of self-regulation. First grades tend to be more self-regulated than second grades. There are not significant differences between the first and second-year students in terms of total scale mean, and motivation, persistence and curiosity dimensions. In the study conducted by Diker-Coşkun and Demirel (2012), it was concluded that university students' lifelong learning tendencies differ in favor of the fourth grades. Karakuş (2013), found that lifelong learning competencies of vocational school students differ in favor of the second grades. These two studies show that the level of lifelong learning of students in upper grades is high. On the other hand, Kupana and Sazak (2019) conducted a similar study on conservatory students and concluded that grade does not affect students' lifelong learning tendencies. Considering all these results, it can be said that grade effect on lifelong learning tendencies change in different samples. The province, the major, and the school may have an impact on that change.
Students' majors differentiate their lifelong learning motivation tendencies. The students studying in the field of technical sciences have the highest motivation mean, while the students studying in the field of health sciences have the lowest. Concerning motivation means, significant differences were found between social sciences and health sciences in favor of social sciences, and between technical sciences and health sciences in favor of technical sciences. There are not significant differences between the major groups in terms of total scale mean, and persistence, self-regulation and curiosity dimensions. Bulaç and Kurt (2019) conducted a similar study on pre-service teachers and analyzed the data only on total scale means. The researchers concluded that the major significantly differentiates lifelong learning tendencies. Bulaç and Kurt's results are in conflict with this research. In this study, while differentiation was determined in the motivation dimension, no significant difference was found in total scale means.
The variables of family income, mother education level and father education level does not make a significant difference in terms of lifelong learning total scale mean and the dimensions' means. Similar to these findings, Dikmen, Denat, Filiz, and Başaran (2016) concluded that income does not affect the lifelong learning tendencies of students studying in the nursing. Bulaç and Kurt (2019) found that the variables of mother education level and father education level do not affect prospective teachers' lifelong learning tendencies. The findings support each other.
Future plans variable is statistically significant for the curiosity dimension. The curiosity mean of the students who want to progress academically is significantly higher than those who want to get a job. There are not significant differences between two groups in terms of the total scale mean, and motivation, persistence and self-regulation dimensions.

As a result, it can be said that lifelong learning tendencies of vocational school students is not high enough. Informative seminars, conferences and events can be organized to enhance student awareness about lifelong learning. The reasons why male students have low lifelong learning tendencies compared to females, and the second grades have lower self-regulation than the first grades could be revealed by conducting qualitative researches. Studies can be conducted on lifelong learning motivations of vocational school students studying in the field of health sciences. Regardless of their plans after graduation, students should be made aware that lifelong learning will help in all aspects of their lives. Studies designed with different demographic variables or research methods can be conducted on different samples on the subject.

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