



European Journal of Educational Research

Volume 8, Issue 3, 729 - 741.

ISSN: 2165-8714

<http://www.eu-jer.com/>

Examination of Primary School and Middle School Teachers' Lifelong Learning Tendencies Based on Various Variables*

Semra Demir-Basaran**
Erciyes University, TURKEY

Cigdem Sesli
Ministry of Education, TURKEY

Received: April 24, 2019 • Revised: May 20, 2019 • Accepted: June 12, 2019

Abstract: The purpose of this study is to determine whether or not teachers' lifelong learning tendencies vary by gender, professional field, educational level of service, professional seniority, and frequency of reading a book, magazine, and newspaper. The study employs a descriptive research model. Its population consists of primary teachers and field teachers working in the central district of Kayseri province, located in the middle part of Turkey, in the 2015-2016 academic year. The study group consists of 380 teachers chosen from this population through stratified sampling. The data were collected through Personal Information Form and Lifelong Learning Tendency Scale developed by Diker-Coskun. The obtained data were analyzed via SPSS 20.00 at 0.05 significance level. The study revealed that the teachers working in the middle part of Turkey have low lifelong learning tendencies. Also, the study determined that the teachers' lifelong learning tendencies significantly vary by gender, professional field, educational level of service, and frequency of reading a book, magazine, and newspaper, but professional seniority is not a factor that leads to a significant difference in lifelong learning tendency.

Keywords: *Primary school teacher, field teacher, lifelong learning, demographic variables.*

To cite this article: Demir-Basaran, S., & Sesli, C. (2019). Examination of primary school and middle school teachers' lifelong learning tendencies based on various variables. *European Journal of Educational Research*, 8(3), 729-741. <https://doi.org/10.12973/eu-jer.8.3.729>

Introduction

Today, education systems structured for the education of a large number of students have difficulty in producing new values and skills needed. Schools structured for raising similar individuals fail to meet individual needs. In the 21st century, what is important is not providing individuals with information but teaching them how to access it. In other words, not teaching but "learning to learn" comes to the forefront (Aksoy, 2013).

Learning is a process in which an individual forms his or her experiences as a whole, turns what he or she learns into knowledge, skills, attitudes, beliefs, and values, and then integrates their results with life (Schunk, 2009; Jarvis, 2004). Learning is the key concept of lifelong learning (Doyle, 1994). The sense of wonder and motive to go beyond the current situation constitute the basis of the concept of lifelong learning (Aspin, Chapman, Evans, & Bongall, 2012).

Lifelong learning refers to a permanent obligation to acquire and apply knowledge and skills. It is a concept pertaining to learning processes and meeting the demands of changing economies and communities. The aim is to ensure the involvement in society of individuals who can actively participate in all areas of social and economic life regardless of age, gender, or social and economic status. Lifelong learning is more than a non-formal education, renewed education, and second education opportunity for adults. It is a way of seeing every part of teaching and learning including formal education, non-formal education, and learning from life (Aksoy, 2013).

Defined in many different ways, lifelong learning is defined by Candy, Crebert, and O'Leary (1994) as a process that increases, strengthens and supports the knowledge, skills, values, and conceptions acquired by individuals throughout their life. It is education given throughout a person's life for Kullich (1982), preparation of individuals to control their life for White (1982), and education identified with the whole life for Lengrad (1985). In short, lifelong learning refers to an individual's use of formal and non-formal learning opportunities to ensure the continuous development of the

* This study is supported by Erciyes University Scientific Research Projects Office under the code SBA-2016-5060.

** **Corresponding author:**

Semra Demir-Basaran, Erciyes University, Faculty of Education, Kayseri / Turkey. ✉ semrademirr@hotmail.com

knowledge and skills s/he needs for employment and for his/her personal development (Delors, 1996; Kosir & Breznik, 2011). Apart from that, lifelong learning is also stated to involve activities for improving knowledge and skills associated with academic and professional life, for recreation, and for entertainment (Ayhan, 2005; Purcell, 2008).

The *Turkey Lifelong Learning Strategy Paper*, issued by the Ministry of National Education in 2009, defines lifelong learning as all kinds of learning activities in which an individual participates throughout his or her life to improve his or her knowledge, skills, interests, and competencies with a personal, social, and employment-related approach. Despite the lack of agreement on what lifelong learning represents exactly, there is a wide consensus that it involves multiple learning ways an individual undergoes throughout his or her life (Abukari, 2005; Bolhuis, 2003; Bryce, 2004; Candy, 2000; Crick, Broadfoot, & Claxton, 2004; Friesen & Anderson, 2004; Hager, 2004; Livingstone, 2001). Lifelong learning should be understood as a socio-cultural process that is important in many aspects rather than just a policy, law, or meta-learning type (Usher & Edwards, 2007). Technological and economic changes are important milestones of lifelong learning, and, as stated above, cultural changes cannot be excluded from this (Raggatt, Edwardas, & Small, 1996; Murphy, 1999).

Lifelong learning, which is based on the philosophy of improving an individual's various skills in economic, cultural, social, and educational terms throughout his or her life, has certain basic characteristics. *Totality*, one of the basic characteristics of lifelong learning, means that lifelong learning encompasses formal and non-formal education systems in which individuals of all ages, from pre-school education to adult education, are involved. *Integration* refers to the integration of home and social life into the learning process in formal education institutions such as schools and universities. *Flexibility* is the adaptability of lifelong learning to changing needs and the facilitation of new media and opportunities through lifelong learning. *Democratization* means that lifelong learning allows different stakeholders to benefit from education for their intellectual development, interests, and motivations. *Self-fulfillment* is the most important goal of lifelong learning and refers to the realization of oneself (Cropley & Dave, 1978),

Continuing education and education anywhere, which constitutes the fundamental philosophy of lifelong learning, affects technology, family, cultural and artistic activities, and schools in a community. In communities where lifelong learning is predominant, individuals can access information by using technological tools. In this way, more individuals have a chance to access education. Schools, which play the most important role in lifelong learning (Budak, 2009), have functions such as introducing basic skills needed for lifelong learning through compulsory education, updating school curricula and making them flexible to provide students with different ways of learning, and encouraging students to actively participate in their own education and educational planning.

In lifelong learning understanding, education should be learner-centered rather than teacher-centered, and learners should participate in all stages of the educational process such as setting objectives, designing the curriculum, choosing learning methods, and assessing learning. Learning content and methods should be determined based on the individual's life and work experience. Accordingly, it can be stated that lifelong learning is a process including informal learning by going beyond the borders of formal education (Candy, 2003). This being the case, it is very important to provide individuals with a learning culture so that they can make use of informal education environments after they have undergone the formal education process. It is teachers who will provide individuals with this learning culture.

Teachers raising lifelong learners are expected to be capable of establishing a bond between the education system and the individual, contributing to the development of the individual as a whole, living modern values, establishing an effective communication, engaging in critical thinking, and organizing educational environments considering their students' learning styles; outgoing; autonomous; information managers; intermediaries; guides; and lifelong learners and teachers (Okcabol, 2005; Merter & Koc, 2010). Teachers should play a role as a manager and be just one of the learning resources while students should improve their learning skills themselves under the teacher's guidance, take responsibility in the learning process, and participate in decision-making processes.

According to Davis and Sumara (1997), teachers' learning characteristics affect the society they live in, and teachers must have competencies related to lifelong learning to build a lifelong-learning community. In this regard, eight competencies are indicated for lifelong learning: communication in the modern tongue, communication in foreign languages, mathematical competence and basic competences in science and technology, digital competence, learning to learn, social and civic competence, sense of initiative and entrepreneurship, and cultural awareness and expression (Otten & Ohana, 2009). A study aiming to examine lifelong learning in France within the context of teacher training stresses the following qualifications for teachers as a requirement: having an agreeable personality, being creative and innovative, self-assessment and analysis, working in harmony with the environment and people, keeping pace with the change in students, and using one's imagination.

The "General Competencies for Teaching Profession" directive issued by the Republic of Turkey Ministry of National Education General Directorate of Teacher Training and Education states that a teacher must exert an effort for continuous change and development through self-assessment. It also argues that teachers should be open to new information and ideas, reach learning and teaching resources in technological environments, and evaluate the accuracy and relevance of such resources (Ministry of National Education, 2008). In addition, teachers, who are also expected to be lifelong learners, must bear such characteristics of lifelong learners as being motivated for learning, persistence in

learning to maintain learning, determination to cope with the obstacles and problems in the learning process, wondering as a driving force to get information, and organizing learning to control what is learned through one's own thoughts and behaviors (Pintrich & Schunk, 2002; Derrick, 2003; Zimmerman, 1986). These competencies and characteristics stated here show that teachers should have a lifelong learning tendency. When teachers have and adopt an understanding of lifelong learning, it enables teachers to effectively fulfill their role as *a mediator in social change* (Coolahan, 2002). The fact that teachers taken as role models by students have the characteristics of learning, information searching, curiosity, and continuous self-improvement is one of the most important factors that increase students' learning motivation.

A search of the literature on lifelong learning has revealed that there are a large number of direct and indirect factors affecting lifelong learning. Some of these factors have been found to be very important on the perception and development of lifelong learning. Teachers as role models are among these factors. There are several studies that have examined the topic of lifelong learning among teachers in Turkey. These studies have investigated teachers' lifelong learning competencies (Kazu & Erten, 2016; Demirel, Sadi, & Dagyar, 2016), teachers' level of lifelong learning (Erdamar, Demirkan, Saracoglu, & Alpan, 2017), teachers' lifelong learning tendencies (Ayaz, 2016; Yilmaz 2016; Dundar, 2016; Yaman & Yazar, 2014), and the relationship between teachers' lifelong learning tendencies and various variables (Ayra, 2015; Kilic, 2015; Ozcifci & Cakir, 2015; Poyraz, 2014; Toyoglu, 2016; Boztepe & Demirtas, 2018; Ileri, 2017; Tanatar, 2017; Cam 2017; Keskin & Yazar, 2015). The results of these studies are different in terms of all these variables. The reason for this difference may be that the studies were carried out in different geographies or due to the diversity of views on the subject in line with the diverse structure of Turkish society. In most of these studies, teachers' lifelong learning tendencies were not at the desired level in terms of various variables. The differing results of these studies suggest that new studies should be carried out on this topic.

Teachers are considered to be among of the important indicators in the process of students' becoming lifelong learners. Primary and field teachers play a key role in raising students who have the competence of lifelong learning and are able to adapt it to every aspect of life through activities such as helping them to take responsibility for their learning, providing learning opportunities not only in the classroom but also outside the classroom, and teaching students how to learn. Teachers as students' role models are not just guides or supporters, but a good motivation in the process of lifelong learning. A transition from learning externally controlled by a teacher to internally controlled learning of students and from a learning derived from systematic branches of science to student-centered contents that are formed out of students' needs is needed for schools that prepare students for lifelong learning (Fischer, 1999). This is what lifelong learning entails. Against this background, the main objective of this study is to identify the lifelong learning tendencies of primary and field teachers and to shed light on the process of becoming lifelong learners. The research questions are as follows:

1. What is the level of lifelong learning tendencies of the teachers working in Kayseri province?
2. Does gender significantly differentiate lifelong learning tendencies of the teachers working in Kayseri province?
3. Do the fields of the teachers working in Kayseri province significantly differentiate their lifelong learning tendencies?
4. Do educational levels of service of the teachers working in Kayseri province significantly differentiate their lifelong learning tendencies?
5. Does professional seniority of the teachers working in Kayseri province significantly differentiate their lifelong learning tendencies?
6. Do lifelong learning tendencies of the teachers working in Kayseri province differ significantly based on their frequency of reading books, magazines, and newspapers?

Methodology

Research Model

This is a survey study. Survey studies require collecting data to reveal specific characteristics of a group (Buyukozturk, Kilic Cakmak, Akgun, Karadeniz & Demirel, 2008). This model is employed in this study because this study seeks to reveal lifelong learning tendencies of the teachers working Kayseri province. Survey studies generally aims to describe the current situation regarding the subject under study as if taking a photograph (Fraenkel & Wallen, 2006).

Population and Sample

The study population consisted of primary teachers and field teachers working in primary and middle schools in the central districts Melikgazi, Kocasinan and Talas in Kayseri, located in the middle part of Turkey. There are a total of 3167 primary teachers and 5450 field teachers working in the schools affiliated to Melikgazi, Kocasinan and Talas District Directorates of National Education under Kayseri Provincial Directorate of National Education. The total number of teachers is 8617. This study used proportional random sampling (stratified sampling) due to the large population size and its convenience of dividing the population into sub-groups. Thus, the sample was selected from

primary teachers and field teachers working in the said districts on the basis that it would adequately represent the given population. Based on the population size, the sample size was determined to be 380 at a 95% confidence level with a 5% margin of error. The number of sampled teachers was determined on the basis that it would accurately represent the overall population. As a result, 237 field teachers (i.e. Turkish Language, Science and Technology, Social Sciences, English Language, Religious Culture and Moral Knowledge, Physics, Chemistry, Biology, History, Geography, and Literature teachers) and 143 primary teachers were included in the sample. After the number of primary and field teachers included in the sample was determined based on the representation of the overall population, the sampled teachers were distributed to the districts based on the representation rates in the districts where they work. A diversity of schools was thereby ensured that would allow adequate data to be collected from each district. Permissions required to collect data were obtained from Kayseri Provincial Directorate of National Education.

Data Collection Tools

The data were collected using a *Personal Information Form* designed by the researchers and the *Lifelong Learning Tendency Scale (LLTS)* developed by Diker-Coskun (2009). Personal Information Form includes questions about the characteristics that constitute the independent variables of this study such as the teachers' fields, at which level of education they work, and seniority. The scale items are scored on a 6-point Likert scale ranging from "very suitable", "partly suitable", "very slightly suitable", "very slightly not suitable", and "partly not suitable" to "not suitable". The scale consists of 27 items, and the Cronbach's alpha coefficient was found to be .89. To test the content validity of the scale, literature review was made, and views of experts were received. Pearson correlation analysis results for the validity of the test was found to be .67. The scale was analyzed for construct validity with data obtained from 642 students. Explanatory Factor Analysis was made using Varimax rotation and Principal Component Analysis methods. Factor analysis showed that the scale has four main sub-dimensions whose 74 items have eigenvalues above 12. Kaiser-Meyer-Olkin (KMO) coefficient was calculated and Bartlett's Test was employed before the analysis to see whether the data are suitable for factor analysis. KMO value was found to be .89. The scale has four sub-scales. Out of 27 items, 6 is included in the *motivation* sub-scale, 6 in the *perseverance* sub-scale, 6 in the *lack of regulating learning* sub-scale, and 9 in the *lack of curiosity*. A high score on the *motivation and perseverance* sub-scales suggests a high level of lifelong learning tendency, while a high score on the *lack of curiosity and lack of regulating learning* sub-scales suggests a low level of lifelong learning tendency. The minimum score of lifelong learning tendency was found to be 27, the median score was 94.5, and the maximum score was 162. Reliability coefficient of this scale in this study was calculated via Cronbach Alpha with a value of .92.

Data Analysis

To test the normality of data distribution, Kolmogorov-Smirnov and Shapiro Wilk tests were employed. It was seen that the data do not show a normal distribution based on the test results. Afterwards, normality was tested via kurtosis and skewness values with the same data. The results of Skewness and Kurtosis tests showed that the data is distributed normally. After testing the normality of distribution, parametric statistics methods were employed for the data. To this end, descriptive statistics were employed for the first sub-problem (x, ss); unpaired t test was employed for the second, third, and fourth sub-problems; and one-way variance analysis was employed for the fifth sub-problem. The independent variable dimensions of the sixth sub-problem regarding the frequency of reading books, magazines, and newspapers were initially organized as "never", "sometimes", and "every day". However, the number of data in each unit showed that the number of participants stating that they never read books, magazines or newspapers is only 4. As it is thought that the number 4 in the category of "never" cannot be statistically significant, data analysis of this sub-problem was made between those who sometimes read and those who read every day. Therefore, unpaired t test was employed for this sub-problem as well.

Findings

This section presents the results of the analysis following the order of research questions. Thus, it first presents the findings on teachers' lifelong learning tendencies, which are followed by the findings as to whether teachers' lifelong learning tendencies differ by gender, professional field, educational level of service, professional seniority, and frequency of reading a book, magazine, and newspaper.

What is the level of lifelong learning tendencies of the teachers working in Kayseri province?

Table 1. Descriptive Statistics Values for Teachers' Lifelong Learning Tendencies

Sub-scales	N	Min	Max	M	SD
Motivation (6)	380	6.00	28.00	10.2342	4.09071
Perseverance(6)	380	6.00	31.00	12.4947	5.09721
Lack of regulating learning(6)	380	6.00	36.00	13.3342	7.30608
Lack of Curiosity(9)	380	9.00	51.00	20.0342	9.75864
Total	380	27.00	111.00	56.0974	20.35564

As shown in Table 1, the lowest score on the LLTS was 27, the highest score was 111, and the mean score was 56.0974 (SD=20.35564). Considering the mean scores on the LLTS sub-scales, the teachers had a low mean score on the motivation sub-scale (M =10.234, SD=4.090), which measures willingness to learn new information and skills and to promote self-improvement, and on the perseverance sub-scale (M =12.494, SD=5.097), which is concerned with devoting time and effort to research to learn, and creating learning opportunities. On the other hand, they had a low mean score on the lack of regulating learning (M =13.334, S=7.306), which is associated with thinking it unnecessary to learn new information and skills for personal, and professional development and having difficulty in learning new information. They had also a low mean score on the lack of curiosity sub-scale (M =20.034, SD=9.758), which is associated with thinking it unnecessary to conduct research and attend training and seminars for personal and professional development, and unwillingness to devote money and effort to training and self-improvement.

Does gender significantly differentiate lifelong learning tendencies of the teachers working in Kayseri province?

Table 2. T-test Results on the Analysis of Teachers' Lifelong Learning Tendencies by Gender

	Gender	N	M	SD	t-value	P
Motivation (6)	Women	191	10.3403	4.28883	.508	.612
	Men	189	10.1270	3.88871		
Perseverance (6)	Women	191	12.3613	5.36464	-.513	.608
	Men	189	12.6296	4.82242		
Lack of Regulating learning (6)	Women	191	11.8429	6.33590	4.077	.000
	Men	189	14.8413	7.90544		
Lack of Curiosity (9)	Women	191	18.6387	9.11738	2.828	.005
	Men	189	21.4444	10.19769		

Table 2 shows the results of the t-test analysis run to test whether teachers' lifelong learning tendencies significantly differ by gender. Accordingly, there was a statistically significant difference between the mean scores of the lack of regulating learning (t=4.077; p< 0.05) and the lack of curiosity (t=2.828; p< 0.05) sub-scales. Considering that female teachers' low mean score on the lack of regulating learning, it seems that they, compared to male teachers, give more importance to the contributions of others around them for their professional and personal development and are likely to use professional information sources even if there is no necessity. Female teachers had a lower mean score on the lack of curiosity sub-scale than male teachers. This finding suggests that female teachers are more curious to do research and attend training and seminars for their personal and professional development and to devote money and effort to training and self-improvement. However, there was no significant difference, in terms of gender, between the mean score of the motivation sub-scale, which is concerned with willingness and desire to do research and learn new information and skills, and the mean score of the perseverance sub-scale (p> 0.05), which is concerned with devoting time, money and effort to learning and coping with difficulty in learning.

Do the fields of the teachers working in Kayseri province significantly differentiate their lifelong learning tendencies?

Table 3. t-test Results on the Analysis of Teachers' Lifelong Learning Tendencies by Professional Field

	Professional Field	N	M	SD	t-value	p
Motivation (6)	Primary Teacher	143	8.9231	2.41788		
	Field Teacher	237	11.0253	4.65680	-5.778	.000
Perseverance (6)	Primary Teacher	143	11.0000	3.42731		
	Field Teacher	237	13.3966	5.69966	-5.119	.000
Lack of Regulating learning (6)	Primary Teacher	143	12.0140	6.45459		
	Field Teacher	237	14.1308	7.67865	2.880	.004
Lack of Curiosity (9)	Primary Teacher	143	16.9860	8.07621		
	Field Teacher	237	21.8734	10.23044	5.158	.000

As can be seen from the table above, there was a significant difference in the mean scores of groups on the motivation ($t=-5.778$; $p< 0.05$), perseverance ($t=-5.119$; $p< 0.05$), lack of regulating learning ($t=2.880$; $p< 0.05$), and lack of curiosity ($t=5.158$; $p< 0.05$) sub-scales. Field teachers had higher mean scores on the motivation and perseverance sub-scales than primary teachers. This finding indicates that field teachers are more willing to acquire personal and professional knowledge and to cope with difficulties in doing so, and that they are likely to devote time, money and effort to learning. Field teachers had also higher scores on the lack of regulating learning and lack of curiosity sub-scales than primary teachers. This suggests that even though field teachers have motivation and perseverance, their curiosity and ability to regulate learning are lower compared to primary teachers.

Do educational levels of service of the teachers working in Kayseri province significantly differentiate their lifelong learning tendencies?

Table 4. t-test Results on the Analysis of Teachers' Lifelong Learning Tendencies by Educational Level of Service

	Educational Level of Service	N	M	SD	t-value	P
Motivation (6)	Primary school	170	9.4588	3.51178		
	Middle school	210	10.8619	4.41452	-3.451	.001
Perseverance (6)	Primary school	170	11.5882	4.35494		
	Middle school	210	13.2286	5.52897	-3.235	.001
Lack of regulating learning (6)	Primary school	170	12.3588	6.81936		
	Middle school	210	14.1238	7.60218	2.383	.018
Lack of Curiosity (9)	Primary school	170	17.8353	8.85765		
	Middle school	210	21.8143	10.10608	4.087	.000

Table 4 shows the findings as to whether teachers' lifelong learning tendencies differ by educational level of service. Accordingly, the mean scores on all sub-scales were statistically significant. The lifelong learning tendencies of primary and middle school teachers significantly differed in the motivation ($t=-5.778$; $p< 0.05$), perseverance ($t=-5.119$; $p< 0.05$), lack of regulating learning ($t=2.880$; $p< 0.05$), and lack of curiosity sub-scales ($t=5,158$; $p< 0.05$). Thus, with respect to the motivation sub-scale, middle school teachers were more keen on lifelong learning and personal and professional development than primary school teachers. With respect to the perseverance sub-scale, middle school teachers were also more patient in devoting time, money and effort to learning, and dealing with difficulties than primary teachers. On the other hand, with respect to the lack of regulating learning sub-scale, compared to primary teachers, middle school teachers considered it less necessary to learn new information, and skills and were less likely to use professional information sources unless needed. With respect to the lack of curiosity sub-scale, in parallel with the low level of regulating learning, middle school teachers also showed a greater lack of curiosity compared to primary school teachers.

Does professional seniority of the teachers working in Kayseri province significantly differentiate their lifelong learning tendencies?

Table 5. Descriptive Statistics Results on the Analysis of Teachers' Lifelong Learning Tendencies by Professional Seniority (Years)

	Professional Seniority	N	M	SD
Motivation(6)	1-11 years	134	10.7910	4.15503
	12-21 years	137	10.1095	4.01043
	22 years and over	109	9.7064	4.06499
	Total	380	10.2342	4.09071
Perseverance(6)	1-11 years	134	12.7761	4.87843
	12-21 years	137	12.4745	5.16789
	22 years and over	109	12.1743	5.29473
	Total	380	12.4947	5.09721
Lack of regulating learning(6)	1-11 years	134	12.7015	6.99090
	12-21 years	137	14.1022	7.71961
	22 years and over	109	13.1468	7.12822
	Total	380	13.3342	7.30608
Lack of Curiosity(9)	1-11 years	134	20.0299	9.48679
	12-21 years	137	21.3723	10.34409
	22 years and over	109	18.3578	9.13836
	Total	380	20.0342	9.75864

As Table 5 shows, teachers who had 1 to 11 years of professional seniority had the highest mean score with 1.7985 on the motivation sub-scale. They were followed by those who had 12 to 21 years of professional seniority with a mean score of 1.6849, and those who had 22 years and more of professional seniority with a mean score of 1.6177, respectively. Accordingly, teachers who had 1 to 11 years of professional seniority had a greater tendency to learn and do research for their personal and professional development. Thus, it seems that lifelong learning *motivation* decreases as years of professional seniority increase.

Teachers who had 1 to 11 years of professional seniority had again the highest mean score with 2.1294 on the perseverance sub-scale. They were followed by those who had 12 to 21 years of professional seniority with a mean score of 2.0791, and those who had 22 years and more of professional seniority with a mean score of 2.0291, respectively. This finding indicates that teachers in their first 10 years were more likely to devote the necessary time, money, and effort to learning compared to more senior teachers.

Teachers who had 1 to 11 years of professional seniority had the highest mean score with 4.8831 on the lack of regulating learning sub-scale. They were followed by those who had 22 years and more of professional seniority with a mean score of 4.8089, and those who had 12 to 21 years of professional seniority with a mean score of 4.6496, respectively. This finding reveals that teachers who had 12 to 21 years of professional seniority had a lower tendency to consider it necessary to plan and evaluate their own learning and reach professional information sources compared to those who had 22 years and more of professional seniority.

Teachers who had 22 years and more of professional seniority had the highest mean score with 4.9602 on the lack of curiosity sub-scale. They were followed by those who had 1 to 11 years of professional seniority with a mean score of 4.7745, and those who had 12 to 21 years of professional seniority with a mean score of 4.6253, respectively. This finding shows that teachers who had 12 to 21 years of professional seniority were less curious to learn, do research and improve themselves compared to those who had 1 to 11 years and 22 years and more of professional seniority.

Table 6. One-Way Analysis of Variance (ANOVA) Results on the Analysis of Teachers' Lifelong Learning Tendencies by Professional Seniority (Years)

Sub-scales		Sum of Squares	df	Mean Squares	F	p
Motivation	Between-group	74.043	2	37.021		
	Within-group	6268.112	377	16.626	2.227	.109
	Total	6342.155	379			
Perseverance	Between-group	21.857	2	10.929		
	Within-group	9825.132	377	26.061	.419	.658
	Total	9846.989	379			
Lack of regulating learning	Between-group	138.275	2	69.137		
	Within-group	20092.280	377	53.295	1.297	.274
	Total	20230.555	379			
Lack of Curiosity	Between-group	551.614	2	275.807		
	Within-group	35540.941	377	94.273	2.926	.055
	Total	36092.555	379			

It is apparent from the table above that a higher mean score was obtained on the motivation and perseverance sub-scales by teachers who had 1 to 11 years of professional seniority and on the lack of regulating learning and lack of curiosity sub-scales by those who had 12 to 21 years of professional seniority; however, this difference was statistically insignificant ($p > 0.05$).

Do lifelong learning tendencies of the teachers working in Kayseri province differ significantly based on their frequency of reading books, magazines, and newspapers?

The analyzes in the following table were performed with 376 data. Because only 4 teachers reported that they never read. Therefore, this option was excluded from the analysis.

Table 7. T-Test Results Regarding the Teachers' Lifelong Learning Tendencies Based on the Frequency of Reading Books, Magazines, and Newspapers

	Frequency	N	Mean	Std. Deviation	t-value	p
Motivation (6)	Sometimes	206	10.5243	3.85428	1.417	0.157
	Every day	170	9.9235	4.36365		
Perseverance (6)	Sometimes	206	12.7476	4.78966	1.107	0.269
	Every day	170	12.1647	5.41387		
Lack of Regulating Learning (6)	Sometimes	206	13.5049	7.28697	0.033	0.527
	Every day	170	13.0294	7.20735		
Lack of curiosity (6)	Sometimes	206	20.4078	9.66758	0.926	0.275
	Every day	170	19.3118	9.69306		

Table 7 shows that the difference between groups is not statistically significant in terms of motivation, perseverance, lack of regulating learning, and lack of curiosity based on the t test results regarding the teachers' lifelong learning tendency mean scores for reading books, magazines, and newspapers.

Discussion and Conclusions

The results of this study showed that the teachers working in the middle part of Turkey had low lifelong learning tendencies. The result obtained in this study contradicts previous quantitative and qualitative studies with the same target audience (i.e. teachers) even if some of these studies employed the same measurement tool (Cam, 2017; Ayaz, 2016; Toyoglu, 2016; Kilic, 2015; Ayra, 2015, Kuzu & Erten, 2014;2015; Ozciftci & Cakir, 2015; Sahin & Arcakok, 2014,

Ileri, 2017; Tanatar, 2017). All these previous studies found that teachers had high lifelong learning tendencies. This result may be explained by the lack of a positive attitude toward lifelong learning, the need for information to elicit intrinsic motivation for lifelong learning, and emotionally stimulating impulses toward lifelong learning, which were stipulated by Wlodkowski (1993). This is because if teachers have positive attitudes and emotionally stimulating impulses towards learning, a tendency towards lifelong learning will naturally emerge. According to Cross' (1981) chain-of-response (COR) model, participating in a learning activity is not a one-way action, but an action that results in a chain of reaction. This model suggests that the desire to participate in learning activities begins with the individual and increases depending on external factors (Cross, 1981). Considering that attachment, orientation to success, autonomy, career development, and involvement are psycho-social factors that strengthen employees' motivation, it can be said that the lack of these factors in schools may have led to teachers' low lifelong learning tendencies. Ayra (2015) was found that teachers who had high lifelong learning tendencies also had high professional self-efficacy beliefs. Likewise, Ozata (2007) found that teachers who had high professional self-efficacy beliefs were more open to learning, change, and development. A possible explanation for the finding in the present study might be associated with teachers' low professional self-efficacy beliefs.

The analysis results showed that teachers' lifelong learning tendencies differed by gender in the lack of regulating learning and lack of curiosity sub-scales. Male teachers had higher mean scores on the lack of regulating learning and lack of curiosity sub-scales compared to female teachers. As noted by Diker-Coskun, a high score on the motivation and perseverance sub-scales suggests a high lifelong learning tendency, while a high score on the lack of curiosity and lack of regulating learning sub-scales suggests a low lifelong learning tendency. It thus appears that male teachers' lifelong learning tendencies were lower compared to female teachers. This finding corroborates the findings of a considerable deal of previous work (Ileri, 2017; Tanatar, 2017; Cam, 2017; Ayra, Kosterelioglu, & Celen, 2016; Kilic, 2015; Ozciftci & Cakir, 2015). These studies also found the lifelong learning tendencies of male teachers to be lower than those of female teachers. Jerkins (2004) discussed that the reasons why women are more likely to value learning and have a greater learning tendency include job change due to women's roles and responsibilities in family and community life, the need to leave their job or have long breaks, and the anxiety that their professional competence would be inadequate even if it were equal to men's. Jerkins (2004) also argued that women benefit less from the education system than men although women care more about participating in learning activities to meet their basic educational needs. These reasons may explain women's high lifelong learning tendencies. However, a number of previous studies found no significant difference by gender (Savuran, 2014; Yaman & Yazar, 2015; Ayaz, 2016; Yilmaz, 2016).

Another question in this study was whether teachers' lifelong learning tendencies differed by their field. The analysis results showed that professional field is a variable that led to significant differences in lifelong learning tendencies in all LLTS sub-scales. This finding is consistent with previous research on teachers which reported professional field affects lifelong learning (Cam, 2017; Ayaz 2015; Kazu & Erten, 2014; Yaman & Yazar, 2015; Sahin & Arcakok, 2014). In the present study, field teachers obtained higher scores on all sub-scales than primary teachers. The first two sub-scales of the LLTS aim to evaluate affective organization related to the desire and effort of lifelong learning, while the last two sub-scales evaluate the tendency to regulate the reasons for and conditions of lifelong learning. The high score obtained by field teachers on the first two sub-scales may indicate that lifelong learning is a priority among their individual goals. Perseverance is individuals' struggle and persistence in the face of negative situations they encounter (Sideris, 2007). However, the high score from the last two dimensions suggests that the learning environment and learning curiosity is lower than that of primary teachers.

The analysis results showed that teachers' lifelong learning tendencies significantly differed by educational level of service in all sub-scales. Accordingly, the lifelong learning tendencies of middle school teachers were higher than those of elementary school teachers. Kazu and Erten (2016) and Ayaz (2015) also found that lifelong learning tendencies differ by educational level of service. Kazu and Erten (2016) reported higher lifelong learning tendencies among middle school teachers than Primary school teachers. Ayaz (2015) found that high school teachers have a lower lifelong learning tendency than elementary and middle school teachers. Some studies, however, reported no significant difference by educational level of service (Ozciftci & Cakir, 2015; Tanatar, 2017; Ileri, 2017; Yilmaz, 2016).

The analysis results showed that teachers' lifelong learning tendencies decreased as years of professional seniority increased although no significant difference was found between lifelong learning and professional seniority. In accordance with the present results, some previous studies reported that lifelong learning tendencies decreased with increasing years of professional seniority despite the lack of a significant difference (Savuran, 2014; Ayra, 2015; Ayaz, 2016; Ozciftci & Cakir, 2015). However, another previous study found that the decrease in lifelong learning tendencies was significant (Arcagok & Sahin, 2014). Kilic (2015), Yaman and Yazar (2015), Cam (2017), and Ileri (2017) also showed that lifelong learning tendencies decreased with increasing years of professional seniority. Yilmaz (2016) reported that teachers who have 20 years and more of professional seniority have a high lifelong learning tendency. Tanatar (2017) found that professional seniority is not a variable that leads to differences in teachers' lifelong learning tendencies. All these results show that there is no consistency in the relevant literature as to whether lifelong learning varies according to years of professional seniority, thereby highlighting the need for further research.

The present study also analyzed teachers' lifelong learning tendencies in terms of frequency of reading a book, magazine, and newspaper. The study results show that the frequency of reading books, magazines, and newspapers do not change the level of lifelong learning significantly. Odabasi, Odabasi, and Polat (2008) defined a reading habit as the basis of lifelong learning and argued that the reading action must be sustained regularly throughout life so that an individual can become a lifelong learner. On Lee (2014) discussed that what is expected of individuals is to take responsibility for learning throughout their lives and to develop literacy skills for active citizenship. Cotton (1998) points to the fact that reading, writing, and self-learning skills increase level of lifelong learning. In this study, it was seen that the teachers have low levels of lifelong learning tendencies. Not detecting significant difference between reading frequency of teachers with low levels of lifelong learning tendencies shows that the results of this study are coherent.

Based on the findings of the study, the following recommendations are made.

1. Further research could assess whether teachers' low lifelong learning tendencies are associated with burnout syndrome, problems in the teacher evaluation system of the national education system, and their feeling of uncertainty about frequently changing education systems.
2. Teachers could be provided with a wider range of in-service training activities to equip them with skills required in today's age in line with changing world conditions. In-service training programs could be updated in line with teachers' perceived shortcomings and popular subjects of today's age.
3. Although the education system focuses on learners and raising lifelong learners, it seems that teachers fail to do so. Therefore, teachers should be re-trained in accordance with the philosophy of teaching how to learn.
4. There are a number of challenges arising from the legislation of the Ministry of Education for teachers to attend a postgraduate course while they practice their profession. In addition, having a postgraduate degree offers no advantage for teachers to progress up the career ladder. Therefore, postgraduate education has become disadvantageous for teachers; only teachers who have great motivation for self-improvement tend to have postgraduate education. In this regard, the Ministry of National Education should implement new practices and policies that will encourage teachers to have postgraduate education.
5. Teachers should be economically supported in reaching sources to follow new publications and works.

It is hoped that the results of this study will contribute to planning various teacher training courses and updating teaching education curricula in line with lifelong learning.

Acknowledgments

This study was supported by Erciyes University Scientific Research Projects Office with project code SBA-2016-5060 . We would like to express our special thanks to Erciyes University for their support.

References

- Abukari, A. (2005). Conceptualizing lifelong learning: a reflection on lifelong learning at Lund University (Sweden) and Middlesex University (UK). *European Journal of Education, 40*(2), 143-154.
- Aksoy, M. (2013). Kavram olarak hayatboyu ogrenme ve hayatboyu ogrenmenin Avrupa Birliği serüveni [Lifelong learning as a concept and the European Union adventure of lifelong learning]. *Bilig, 64*, 23-48.
- Arcagok, S. & Sahin, C. (2014). Ogretmenlerin yasam boyu ogrenme yeterlik duzeyinin cesitli degiskenler acısından incelenmesi [Examination of the teachers' lifelong learning competences levels in terms of some variables]. *Adyaman Universitesi Sosyal Bilimler Enstitüsü Dergisi, 16*, 394-417.
- Aspin, D. N., Chapman, J. D., Evans, K., & Bagnal, R. (Eds.). (2012). *Second international handbook of lifelong learning* (Vol. 26). New York, NY: Springer Science and Business Media.
- Ayaz, C. (2016). *Ogretmenlerin yasam boyu ogrenme egilimlerinin bazı degiskenler acısından incelenmesi* [The analysis of lifelong learning tendencies of teachers in terms of some variables] (Unpublished master's thesis). Bartın University, Bartın, Turkey.
- Ayhan, S. (2005). Dünden bugüne yasam boyu ogrenme [Lifelong learning from past to present]. In Sayilan, F. and Yildiz, A. (Prep.) *Yasam Boyu Ogrenme: Sempozyum Bildirileri ve Tartismalar: I. Yasam boyu Ogrenme Sempozyumu* [Lifelong Learning: Symposium Proceedings and Discussions: The 1st Lifelong Learning Symposium].
- Ayra, M. (2015). *Ogretmenlerin yasam boyu ogrenme egilimlerinin mesleki oz-yeterlilik inançları ile ilişkisi* [The relationship of the lifelong learning tendencies of teachers with their self-confidence about their vocational proficiency]. (Unpublished master's thesis). Amasya University, Amasya, Turkey.
- Bolhuis, S. (2003). Towards process-oriented teaching for self-directed lifelong learning: a multidimensional perspective. *Learning and Instruction, 13*(3), 327-347. [https://doi.org/10.1016/S0959-4752\(02\)00008-7](https://doi.org/10.1016/S0959-4752(02)00008-7)

- Boztepe O., & Demirtas Z. (2018). Ogretmen adaylarinin yasam boyu ogrenme ve iletisim memnuniyet duzeylerinin incelenmesi [Investigation of pre-service teachers' lifelong learning and communication satisfaction levels]. *Yuksekokretim ve Bilim Dergisi [Journal of Higher Education and Science]*, 8(2), 327-335. <https://doi.org/10.5961/jhes.2018.275>
- Budak, Y. (2009). Yasam boyu ogrenme ve ilkogretim programlarinin hedeflemesi gereken insan tipi [Lifelong learning and human type that should be aimed at the primary school curriculums]. *Gazi University Journal of Gazi Educational Faculty*, 29(3), 693- 708.
- Buyukozturk, S., Kilic Cakmak, E., Akgun, O. E., Karadeniz, S. & Demirel, F. (2008). *Bilimsel arastirma yontemleri* [Scientific research methods](14th ed.). Ankara, Turkey: Pegem.
- Bryce, J. (2004). Different ways that secondary schools orient to lifelong learning. *Educational Studies*, 30(1), 53-64.
- Candy, P., Crebert, G., & O'Leary, J. (1994). *Developing lifelong learners through undergraduate education*. Canberra, Australia: Australian Government Printing Services.
- Candy, P. C. (2000, July 18). Knowledge navigators and lifelong learners: Producing graduates for the information society. *Higher Education Research & Development*, 19(3), 261-277.
- Candy P C (2003). Lifelong learning and information literacy. *Report for U.S. National Commission on Libraries and Information Science and National Forum on Information Literacy*. Retrieved from <http://www.nclis.gov/libinter/infolitconf&meet/papers/candy-fullpaper.pdf>
- Coolahan, J. (2002). *Teacher Education and the Teaching Career in an Era of Lifelong Learning: OECD Education Working Papers, No. 2*. Paris, France: OECD Publishing. <https://doi.org/10.1787/226408628504>
- Coskun, Y. D. (2009). *Universite ogrencilerinin yasam boyu ogrenme egilimlerinin bazi degiskenler acisinden incelenmesi* [Investigation of lifelong learning tendency of undergraduate students in terms of some variables] (Unpublished doctoral dissertation). Hacettepe University, Ankara, Turkey.
- Cotton, K. (1998). *From high school student to lifelong learner your route to independence*. Washington, DC: Northwest Regional Educational Laboratory.
- Crick, R. D., Broadfoot, P., & Claxton, G. (2004). Developing an effective lifelong learning inventory: the ELLI project. *Assessment in Education: Principles, Policy & Practice*, 11(3), 247-272.
- Cropley, A. J., & Dave, R. H. (1978). *Lifelong education and the training of teachers. developing a curriculum for teacher education on the basis of the principles of lifelong education*. London, Great Britain: Pergamon Press and UNESCO Institute for Education.
- Cross, P. K. (1981). *Adults as learners: Increasing participation and facilitating learning*. San Francisco, CA: Jossey-Bass.
- Cam, E. (2017). *Ilkogretim ogretmenlerinin teknolojik pedagojik alan bilgisi duzeylerinin yasamboyu ogrenme, ozyeterlilik duzeyleri ve hizmetici egitim gereksinimleri acisinden incelenmesi* [Examination of primary school teachers' levels of technological pedagogical knowledge in terms of lifelong learning, self-efficacy levels and in-service training needs: Mus/Bulanik example]. (Unpublished master's thesis). Amasya University, Amasya, Turkey.
- Davis, B., & Sumara, D. (1997). Cognition, complexity and teacher education. *Harvard Educational Review*, 67(1), 105-126.
- Delors, J. (1996). Learning: the treasure within report to UNESCO of the international commission on education for the 21st century. *UNESCO*. Retrieved from <https://unesdoc.unesco.org/ark:/48223/pf0000109590>
- Demirel, M., Sadi, O., & Dagyar, M. (2016). An investigation of science teachers' lifelong learning competencies (The case of Karaman). *Pegem Journal of Education & Instruction*, 6(1), 19-40.
- Derrick, M. G. (2003). *Creating environments conducive for lifelong learning*. Retrieved from: <https://onlinelibrary.wiley.com/doi/epdf/10.1002/ace.115>
- Doyle, C. S. (1994). *Information literacy in an information society: a concept for the information age*. New York, NY: Syracuse University. Retrieved from <https://files.eric.ed.gov/fulltext/ED372763.pdf>
- Dundar, H. (2016). *Sinif ogretmeni adaylarinin yasam boyu ogrenme egilimlerinin incelenmesi* [Investigating lifelong learning tendencies of classroom teacher candidates] (Unpublished master's thesis). Ataturk University, Erzurum, Turkey.
- Erdamar, G., Demirkan, O., Saracoglu, G., & Alpan, G. (2017). Lise ogretmenlerinin yasam boyu ogrenme egilimleri ve egitsel internet kullanma oz-yeterlilik inanclari [The relationship between high school teachers' life-long learning tendencies and their educational internet use self-efficacy beliefs]. *Abant Izzet Baysal Universitesi Egitim Fakultesi Dergisi*, 17(2), 636-657.

- Fraenkel, J. R., & Wallen, N. E. (2006). *How to design and evaluate research in education* (6th Ed.). New York, NY: McGraw-Hill.
- Friesen, N., & Anderson, T. (2004). Interaction for lifelong learning. *British Journal of Educational Technology*, 35(6), 679-687.
- Hager, P. (2004). Lifelong learning in the workplace? challenges and issues. *Journal of Workplace Learning*, 16(1/2), 22-32. <https://doi.org/10.1108/13665620410521486>
- Ileri, S. (2017). *Din kulturu ve ahlak bilgisi ogretmenlerinin yasam boyu ogrenme egilimleri ve hayat boyu ogrenme faaliyetlerine katilim duzeyleri* [Religious culture and ethics teachers' lifelong learning trends and levels of participation in lifelong learning activities]. (Unpublished master's thesis). Dokuz Eylul University, Izmir, Turkey.
- Jarvis, P. (2004). *Adult education and lifelong learning: Theory and practice*. London, UK: Routledge Falmer.
- Jenkins, R. (2004). *Social identity* (2nd Ed.). Abingdon, UK: Routledge.
- Livingstone, D. W. (2001). *Adults' informal learning: definitions, findings, gaps, and future research*. Toronto, Canada: Ontario Institute for Studies in Education of the University of Toronto (OISE/UT).
- Kazu, I. Y. & Erten, P. (2016). Ogretmenlerin yasam boyu ogrenme yeterlilikleri [Teachers' lifelong learning competencies]. *Ilkogretim Online*, 15(3), 838-854.
- Kartal, M. (2006). *Bilimsel arastirmalarda hipotez testleri* [Hypothesis testing in scientific research]. Ankara, Turkey: Nobel.
- Keskin, I., & Yazar, T. (2015). Examining digital competence of teachers within the context of lifelong learning based on of the twenty-first century skills. *Journal of Human Sciences*, 12(2), 1691-1711.
- Kilic, H. (2015). *Ilkogretim brans ogretmenlerinin bireysel yenilikcilik duzeyleri ve yasam boyu ogrenme egilimleri* [Primary subject teachers' individual innovativeness levels and lifelong learning tendencies] (Unpublished master's thesis). Pamukkale University, Denizli, Turkey.
- Kosir, S. & Breznik, K. (2011). Some aspects of networking of lifelong learning. In V. Dermol, N. T. Sirca, G. Dakovic & U. Lindav (Eds.), *Knowledge as business opportunity: Proceedings of the Management, Knowledge and Learning International Conference* (pp. 539-548). Celje, Slovenia: International School for Social and Business Studies.
- Kullich, J. (1982). Lifelong education and the universities: A Canadian perspective. *International Journal of Lifelong Education*, 1(2), 123-142.
- Lengrad P. (1985). Lifelong education: Growth of the concept. In T. Husen & T. N. Postlethwaite (eds.), *The international encyclopedia of education*, V.5. Oxford, UK: Pergamon.
- Merter, F. & Koc, S. (2010, May). *Ilkogretim ogretmenlerinin bilgi egitimi tutumu konusundaki tutumlari* [Primary school teachers' attitudes concerning knowledge teaching attitudes]. Paper presented at the IX. Ulusal Sınıf Ogretmenligi Sempozyumu [9th National Primary Teaching Symposium], Firat University, Elazig, Turkey.
- Milli Egitim Bakanligi (2008). *Ogretmen yeterlikleri: Ogretmenlik meslegi genel ve ozel alan yeterlikleri* [Teacher competencies: general and special field competencies in teaching]. Ankara, Turkey: Milli Egitim Bakanligi.
- Murphy, T. F. M. (1999). *Power and knowledge in education: a critical exploration of lifelong learning* (Unpublished Doctoral Dissertation). Northern Illinois University, Illinois, USA.
- Odabasi, H., Odabasi, Z., & Polat, C. (2008). Universite ogrencilerinin okuma aliskanligi: Ankara universitesi ornegi [Reading habit of university students: The model of Ankara university]. *Bilgi Dunyasi [Information World]*, 9(2), 431-465.
- Okcabol, R. (2005). *Ogretmen yetistirme sistemimiz* [Our teacher training system]. Ankara, Turkey: Utopya.
- Otten, H. & Ohana, Y. (2009). The eight key competencies for lifelong learning: an appropriate framework within which to develop the competence of trainers in the field of European youth work or just plain politics? *SALTO-YOUTH Training and Cooperation Resource Center*. Retrieved from https://www.salto-youth.net/downloads/4-17-1881/Trainer_%20Competence_study_final.pdf
- Ozciftci, M., & Cakir, R. (2015). Ogretmenlerin yasam boyu ogrenme egilimleri ve egitim teknolojisi standartlari ozyeterliliklerinin incelenmesi [Teachers' lifelong learning trends and self-efficiencies about the educational technology standards]. *Egitim Teknolojisi Kuram ve Uygulama*, 5(1), 1-19.
- Pallant, J. (2001). *SPSS survival manuel*. Buckingham, UK: Open University Press.
- Pintrich, R. P., & Schunk, D. H. (2002). *Motivation in education: Theory, research, and applications*. Upper Saddle River, NJ: Merrill.

- Poyraz, H. (2014). *Ogretmenlerin yasam boyu ogrenmelerini etkileyen faktorler ile kurumleri tarafından desteklenme algilari arasindaki iliski* [The relationship between the factors effecting teachers' lifelong learning and their perceptions about the support from schools] (Unpublished Master's Thesis). Sakarya University, Sakarya, Turkey.
- Purcell, R. (2008). Lifelong learning in the community; social action. In P. Sutherlnadi & J. Crowther (Eds), *Lifelong Learning: Concepts and Contexts* (pp. 207- 217). London, UK: Routledge.
- Raggatt, P., Edwards, R., & Small, N. (Eds.) (1996). *The learning society: challenges and trends*. London, UK: Routledge.
- Savuran, Y. (2014). *Life-long learning competencies of prospective English language teachers in comparison with their mentors*. (Unpublished master's thesis). Hacettepe University, Ankara, Turkey.
- Schunk, D. H. (2009). *Ogrenme teorileri: egitimsel bir bakis (Learning theories: an educational perspective)*. (M. Sahin Trans.). Ankara, Turkey: Nobel.
- Sideris, G. D. (2007). Persistence of performance-approach individuals in achievement situations: an application of the Rasch model. *Educational Psychology, 27*(6), 753–770. <https://doi.org/10.1080/01443410701309290>
- Tanatar, E. (2017). *Ogretmenlerin is degerleri ile yasamboyu ogrenme egilimleri arasindaki iliskinin incelenmesi* [The relationship between teachers' work values and lifelong learning tendencies] (Unpublished master's thesis). Marmara University, Istanbul, Turkey.
- Toyoglu, A. C. (2016). *Okullarda hayat boyu ogrenme kulturune iliskin ogretmen ilgi ve gorusleri* [Teachers opinion and perception on life long learning culture at schools] (Unpublished master's thesis). Cumhuriyet University, Sivas, Turkey.
- Usher R., & Edwards R. (2007). *Lifelong learning – signs, discourses, practices*. Dordrecht, The Netherlands: Springer.
- Watts, R. L., & Zimmerman, J.L. (1986). *Positive accounting theory*. Upper Saddle River, NJ: Prentice-Hall Inc.
- White, J. P. (1982). *The aims of education re-stated*. London, UK: Routledge & Kegan Paul.
- Wlodkowski, R. J. (1993). *Enhancing adult motivation to learn*. San Francisco, CA: Jossey-Bass.
- Yaman, F. (2014). *Ogretmenlerin yasam boyu ogrenme egilimlerinin incelenmesi* [Investigating of lifelong learning tendency of teachers [The example of Diyarbakir]. (Unpublished master's thesis). Dicle University, Diyarbakir, Turkey.
- Yaman, F. & Yazar, T. (2015). Ogretmenlerin yasam boyu ogrenme egilimlerinin incelenmesi (Diyarbakir ili ornegi) [Investigating of lifelong learning tendency of teachers (The example of Diyarbakir)]. *Kastamonu University Kastamonu Education Journal, 23*(4), 1553-1566.
- Yilmaz, M. (2016). Ogretmenlerin yasam boyu ogrenme egilimlerinin incelenmesi [Examination of teachers' lifelong learning tendencies]. *Mustafa Kemal University Journal of Social Sciences Institute, 13*(35), 253-262.