The Effect of Distance Education on Lifelong Learning

Cansu ŞAHİN KÖLEMEN [1]

Abstract

Today's technological developments are effective in all areas of social life. One of the fields where technological developments are involved is education. With the inclusion of information and communication technologies in education and training processes, one of the concepts discussed is distance education. Since the learning process with distance education is independent of time and space, it has given birth to the concept of lifelong learning. Lifelong learning is expressed as the realization of learning wherever the individual is without any restrictions. The most important point that lifelong learning affects is equality of opportunity in education. Because lifelong learning puts the individual in the center. Therefore, by changing the role of the school, it gives importance to out-of-school learning. Thus, it supports the personal development of the learner. However, it provides benefits to society in terms of economic growth. It also emphasizes that education should not be subject to a certain time interval. Considering the advantages it provides, this skill should be included in the education system. Based on the reasons stated, in this study, the effect of distance education students on the lifelong learning tendency was examined. Quantitative research method was preferred in the study. Quasi-experimental research, which is one of the quantitative research methods, was used. Convenience sampling method was used in the research. A total of 251 participants were reached for this study with the convenient sampling method. The "Lifelong Learning Tendency" scale, which was developed in 2015, was used as a data collection tool in the research. In the analysis of the data, the independent t-test (unpaired t-test) was used to determine the differences in the pre-test and post-test scores between the groups. In line with the findings obtained as a result of the research, it was determined that the group who received education with distance education had a higher tendency to lifelong learning than the group who did not receive education with distance education. Suggestions were made in line with the results obtained.

Keywords: Distance Education, Lifelong Learning Tendency, Educational Technology, Experimental Study, 21st Century Skill

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Uzaktan Eğitimin Yaşam Boyu Öğrenmeye Etkisi

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Öz

Günümüzde yaşanan teknolojik gelişmeler toplumsal yaşamın her alanında etkili olmaktadır. Teknolojik gelişmelerin dahil olduğu alanlardan biri de eğitimdir. Bilgi ve iletişim teknolojilerinin eğitim-öğretim süreçlerine dahil olmasıyla birlikte konuşulan kavramlardan biri uzaktan eğitimdir. Uzaktan eğitim ile öğrenme süreci zaman ve mekândan bağımsız olmasından dolayı yaşam boyu öğrenme kavramını doğurmuştur. Yaşam boyu öğrenme herhangi bir kısıtlama olmaksızın bireyin bulunduğu her yerde öğrenmenin gerçekleşmesi olarak ifade edilmektedir. Yaşam boyu öğrenmenin etkilediği en önemli nokta eğitimde fırsat eşitliğidir. Çünkü yaşam boyu öğrenme bireyi merkeze almaktadır. Bundan dolayı okulun rolünü değiştirerek, okul dışı öğrenmeye önem vermektedir. Böylece öğrenenin kişisel gelişimini desteklemektedir. Bununla birlikte topluma ekonomik büyümeye açıdan yarar sağlamaktadır. Ayrıca eğitimin belli bir zaman aralığına tabii tutulmaması gerektiğini vurgulamaktadır. Sağladığı avantajlar göz önünde bulundurularak eğitim sistemi içerisinde de bu beceriye yer verilmesi gerekmektedir. İfade edilen sebeplerden yola çıkarak bu çalışmada uzaktan eğitimle öğrenim gören öğrencilerin yaşam boyu öğrenme eğilimine etkisi incelenmiştir. Çalışmada nicel araştırma yöntemi tercih edilmiştir. Nicel araştırma yöntemlerinden yarı deneysel araştırma deseni kullanılmıştır. Araştırma da uygun örnekleme yöntemi kullanılmıştır. Uygun örnekleme yöntemi ile bu çalışma için toplamda 251 katılımcıya ulaşılmıştır. Çalışmada veri toplama aracı olarak 2015 yılında geliştirilen "Yaşam Boyu Öğrenme Eğilim" ölçeği kullanılmıştır. Verilerin analizinde gruplar arası ön-test ve son-test puanlarına ilişkin farklılıkları belirlemek için gruplar arası bağımsız t-testi kullanılmıştır. Araştırma sonucunda elde edilen bulgular doğrultusunda uzaktan eğitim ile öğrenim gören grubun uzaktan eğitim ile öğrenim görmeyen gruba göre yaşam boyu öğrenmeye eğilimlerinin daha yüksek olduğu tespit edilmiştir. Elde edilen sonuçlar doğrultusunda önerilerde bulunulmuştur.

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Introduction

Fast pace developments in technology and science prove that individuals may face substantial challenges and changes throughout their lives. In turn, comes the fact that any acquired existing education of the individual may turn to be insufficient due to such changes. Thus, the education is now required to be transformed to a lifelong research process by the individual (Akbaş and Özdemir, 2002; Beşkaya, Çelik and Yılmaz, 2015). This is because the aforementioned developments being experienced in daily life challenge the individual to adapt itself in its (social/economic) habitat (Uysal, 2020). Whereas, the individuals attempt to obtain new skills and accordingly accelerate their adaptation processes. The basic factor which supports the adaptation of the individual to its surrounding environment is the concept of education. Since the education enables the development of the societies (Karaman and Aydoğmuş, 2018), the individual's acquiring new skills and information within its surrounding society, i.e. adaptation to its existing age, relatedly requires the concept of "lifelong learning. The concept is defined as any sort of learning activity carried out by the individual all through his/her lifetime under the purpose of progressing the individual information, skills and/or competencies (Millî Eğitim Bakanlığı, 2018). The lifelong learning concept is being assisted by the distant education thanks to the respective new information and communication technologies.

The progress of the informatics and communication technologies in our age has caused social, economic and scientific transformations. In parallel with such progress of the technology, our age/period is designated as the age of information composed of the network society. The education processes are also undergoing changes in parallel with the age of information. Thus, the distance education has become a sine qua non component of the present day. The distance education addresses any age and any profession. Non-existence of any space and time limitation is understood as a great advantage. In addition to that, the distance education is also distinguished since it may be designed/shaped in line with the individual's specific learning needs and happens to be in compatible with the multimedia tools (Karakuş, Ucuzsatar, Karacaoğlu, Esendemir and Bayraktar, 2020).

Literature
Distance Education

With the inclusion of the technology, the practice of education in now fully included in the everlasting changing process. The information and communication technologies are effective in any area of life as basing on the advanced present technology whereas also push the concept of lifelong learning to a prioritized status. And, one of the tools assisting the lifelong learning is the distance education.

The concept "distance education" has been introduced for the first time in the 1892-year catalogue of Wisconsion University. Thereafter, the concept has been used in a wording written by William Lighty in 1906. Following, the concept of distance education is started to be discussed by Otto Peters through 1960s Germany (Verduin and Clark, 1994). The first practice of distance education in the world had been realized with the "stenography trainings" of Boston newspaper in 1728. In 19th century, in Switzerland, the women had been provided "composition lectures through letters". In the year 1843, in parallel with now more a common acceptance of the distance education, the

University Correspondence College and some other institutions have started the education through letters. Soon after, for the individuals who could not continue their conventional educations due to several reasons, the University of Letter Education has been established. Then the first educational radio broadcasting has been realized in United States of America in the year 1920. Through the years 1392-1937, the educational television broadcasts were practiced in USA. In 1960, the "British Open University" has been founded in the United Kingdom (Uşun, 2006).

We may say four stages have been experienced in Turkey in relation with the distance education (Bozkurt, 2017). Between the years 1923-1955 i.e. 1st Stage; conceptual discussions and suggestions, between the years 1956-1975 2nd Stage; learning through letters, between the years 1976-1995 3rd Stage; radio and television visual and audio tools, and after 1996 4th Stage; informatics based learning era. No practice of distance learning could be commenced in Turkey till the year 1956 (Kaya and Odabaşı, 1996). The "Center of Learning with Letters" has been founded in the year 1960 (Özarslan and Ozan, 2014). In the year 1968, TRT has broadcasted education programs. In addition to that, the television has also produced certain educations in 1973 (İşman, 2008). The Ministry of National Education, in 1978, has suggested the establishment of an "Open University" aiming to construct distance education practices (Gelişli, 2015). The open education high schools and primary schools are started after 1990s (Demiray ve Adıyaman, 2002). In the present day, the distance education is preferred by many universities, public enterprises and private businesses. The universities grant certificates, vocational two-year degrees, bachelor licenses and master degrees. While distance education methods are complemented by various materials, exams are conducted in two ways, including computer-assisted tests and traditional face exams. Moreover, the students may easily access to the recorded course videos and digital course contents through internet. The Ministry of National Education has established the Education Informatics Web (EBA) under the Initiative of Procuring and Operating the Educational e-contents (Özbay, 2015).

The distance education is out of the classic practices of conventional learning institutionalization whereas brings out an innovative approach. The features of such innovative approach are given below (Holmberg, 1989):

- The formation of the learning processes adaptable to the information level of the student
- Enrichening of the learning methods
- Providing means both for mass and individual learning
- Economical learning
- Non-existence of geographical limitations, school inception and ending dates etc. limitations of formal/conventional education

Özer, Gür and Küçükcan (2010) designate the features of distance learning as follows:

- Existence of the teacher and the student in different environments
- Offering new and different learning options to the learner
- Providing independent or integrated learning environments
- Granting opportunities for the students who may not adapt in conventional education
- Rapid and effective feedback in online learning environments
- Being more economical when compared to the other education forms

As may be seen from the aforementioned characteristics, the distance education enables the learner to compose a learning environment tailored to its own personal conditions. The distance education also reduces the high costs of the education system. Besides, to the contrary of the formal education, a group of learners free of classroom and number of students limitations may be educated. When the distance education process is designed in an effective manner and supported with the efficient use of the information and communication technologies, the student-teacher interaction is possible. Moreover, a learning process enhanced visually thanks to the several media tools is another advantage (Odabaş, 2003). The other benefits of the distance education may be named as; providing different learning options to the learners free from formal education, provision of opportunity equality education, easing the mass education, standardization of the education programs, increasing the quality of the education, offering a richer learning environment to the student, supporting the individual learning, granting an independent learning environment, granting the self-arrangement skills to the individuals, assuring to obtain information from the original sources and allowing more students to favor the specialists of the subject matter of the course (Hızal, 1983). Naturally, all these processes are prepared/formed by making use of the learning management systems.

According to Moore and Kearsley (2005), the distance education is a planned and regulated arrangement under which the learner and the teacher exist in different environments however making use of differentiated course designs, specific teaching methods and advanced technologies. Kaya (2002) defines the distance learning as a process where the stakeholders enjoy a two-way communication through information technologies in cases when required a re-construction or re-assistance of the learning process due to the impossibility of the physical communication of the learner and the teacher. İşman (2008) designates the concept as the realization of learning acts through the utilization of information and communication technologies by the teachers and learners in different spatial environments. Uşun (2006) addresses the distance education as a planned and systematical education technology application under which the source and the receiver exist in different physical environments whereas providing many flexibilities, individualism and independence to the receiver thanks to the interactive information technologies. Considering the aforementioned definitions, it can be said that the objective of the distance education is to enable the masses to enjoy the required educations without a limitation of space and time. EADTU (2013) has defined four major characteristics for the distance education and targeted to develop the same. These characteristics are: (1) Accessibility, (2) Flexibility, (3) Interaction and (4) Personalization. Considering the equality principle for the education; the learning environment and process have to be accessible. The distance education should grant flexibility to the individual with regards to the space, time and learning schedule. The interaction is required to be two-way. And finally, the learning-teaching actions should be decided by the learner (Demir, 2014).

Lifelong Learning

The concept has been expressed for the first time in 1960 under a conference organized by UNESCO (Óhidy, 2008). Due to the various problems experienced in education-learning system in 1980s, the educational processes have undergone again a re-assessment path. Such re-assessing discussions have focused on the concept of lifelong learning. Jarvis (2004) defines the lifelong learning as uniting the corporate and

individual learning branches all together. Holmes (2002) expresses the concept of lifelong learning as discipline and approach. Holmes emphasizes that lifelong learning is not the same as simply attending a course or enrolling in a training course. Because Holmes sees lifelong learning as a personal development with a planned or unplanned approach. Kulich (1982) has described the lifelong learning as the provision of education to the individual all through his/her lifetime. White (1982), in turn, claims that the lifelong learning is the preparation made by the individuals as to manage their own lives.

The lifelong learning aims to restructure the continuing education system and seeks to find answers to the differing education needs of the individuals which may not be sufficed by the formal education. In other words, the concept of lifelong learning targets to establish an equality of opportunity in learning process; which then will (i) enable a permanent personal development of individuals, (ii) contribute to the economic growth and (iii) integrate the society. Considering the aforementioned objectives, it has been understood that the conventional education systems had been insufficient whereas the meaning attributed to the schools had been attempted to be evolved. The lifelong learning promotes an approach which centralizes the individual. Moreover, it changes the role of the school as transferring the focus on learning out of the school. Besides, the concept requires that the education should be limited with a designated time period (Güleç, Çelik and Demirhan, 2014).

UNESCO explains the characteristics of the lifelong learning concept as follows in its report:

- Freeing the education from the school age limitations
- Increasing the life quality of the individual thanks to the underlining educational benefits
- Developing the educational titles in line with the needs of the daily life
- Maintaining the participation of the employees, families and society to the decisions related to the education
- Expressing the need for having a free-opinion through the planning, target-decision and management processes.

Karen (1979) has defined the necessity of the lifelong learning as:

> *"The Faure Report has built up for the first time a philosophy related to the lifelong learning which includes the human, education and society references. This report has formed an optimistic point of view on human nature and the power of the education capable of evolving the society. The will to learn has a rooted place in human nature and if the limitations arising from the external factors are eliminated then such instinct will provide the required motif for the lifelong learning necessity. The future society shall be the learning society whereas the culture of the same will be the 'scientific humanism'. The report claims that the lifelong learning has the capacity, but if organized rationally as it needs to be, to ensure each individual to fully participate in the future scientific-technologic evolution. The lifelong learning is the democratic education and is a pre-condition of a democratic society.*
> (Akkuş, 2008).

The lifelong learning concept has been started to be discussed since 2000s in Turkey. After the commencement of the discussions related to the concept, the Lifelong Learning General Directorate has been established as to act under the Ministry of

National Education. The lifelong learning center has been a must since the formal education had been inadequate and could have not sufficed the needs of the industries in the desired levels (Güleç, Çelik and Demirhan, 2014). Thus, the lifelong learning supports also the training for vocational skills as well as assisting the conventional and formal education of the individuals. That is because the dimension where the information turns to concrete practice is the real life (Günüç, Odabaşı and Kuzu, 2012).

Moreover, the education is probable in school, house or work without regarding the age, title or education level of the individual (Aksoy, 2008). The investment is made in information thanks to the lifelong learning and all the individuals accordingly may equally and freely access the high-quality learning opportunities (Turan, 2005).

The lifelong learning consists of three main frames which are: (1) Personal context lifelong learning, (2) social context lifelong learning and (3) vocational context lifelong learning. The individuals may support their requiring social, professional and private processes through lifelong learning. The private context lifelong learning means the personable (i) to have more information in the area it shows interest, (ii) to demonstrate more performance and (iii) to assist its own personal development better. In line with such purposes, the individual faces the physical, sociologic and psychological factors. The social context lifelong learning means a certain group sharing information in accordance with a determine common purpose or developing the existing information related to such a purpose. The persons develop their social skills throughout this process and communicate with the other individuals in the group. Finally, the vocational context lifelong learning should be understood as the person improving owned functional information for the sake of performing better in its profession. For such a purpose, the respective industries and the universities should act in cooperation (Dowling et.al., 2004).

It is thought that the characteristics of the learning environment offered to individuals in online learning environments will meet the lifelong learning needs (Derrick, 2003). When the literature is examined, it is seen that students have difficulties in carrying out lifelong learning processes (Diker-Çoşkun & Demirel, 2012; Scheuch, Shouping & Gaston, 2009; Kara & Kürüm, 2007). It is thought that the literature, which states that individuals' lifelong learning skills are lacking, will contribute to the literature by revealing the relationship between lifelong learning and distance education. When considered all such opportunities offered by the lifelong learning to the individual, we may emphasize the object of this study as to establish the impacts of the distance education on the lifelong learning skills of the students. Thus, this study has researched the answers of the following questions:

1. Is there a statistically significant difference between the pre-test points of the experimental group and control group?
2. Is there a statistically significant difference between the post-test points of the experimental group and control group?

Method
Research Model

This study has preferred quantitative method. The quantitative researches examine the correlations between the variables that are measured numerically and focus on the quantities. The experimental procedures are used as sub-tools of the quantitative

research method. The experimental procedures are defined as the processes under which the data, which suit with the applicable criteria required to express the cause-consequence relations, being produced and assessed under the control of the researcher and through which the variables are designed (Karasar, 2007). Among the experimental research models; this study has preferred quasi-experimental design and unpaired comparable group pattern. The quasi-experimental researches are favored when the groups may not be formed neutrally or the experiment environment may not be designed unbiased. The unpaired comparable group patter is the application of the post-test control group pattern in an unbiased manner as without any selection (Büyüköztürk, Çakmak, Akgün, Karadeniz and Demirel, 2017). The process conducted is shown under Table 1.

Table 1. Unpaired Comparable Group Model

Groups	Pre-test	Factor Variable	Post-test
Experimental Group	x	Lifelong learning	X
Control Group	X	Lifelong learning	X

Study Group

The study has preferred the convenience sampling method. The reason for such choice was to accelerate the research. Under the convenience sampling method, the researcher selects a situation close or easy to access (Kılıç, 2013). This study included 131 students studying through distance education and 120 students through formal education both groups in the same private university. Experimental and control groups consist of students from associate degree programs of computer technologies department. These programs are Information security technology and computer programming. The gender distribution of the participants is in Table 2; Experimental and control group reproduction distribution starts in Table 3.

Table 2. Research Sample

Groups	N	%
Experimental Group	131	%52
Control Group	120	%48
Total	**251**	**100**

Table 3. Gender Distribution of The Experimental Group and Control Group

	Experimental Group Gender f	Experimental Group Gender %	Control Group Gender f	Control Group Gender %
Female	57	43,5	51	42,5
Male	74	56,5	69	57,5

Data Gathering Method

The study has utilized the "Lifelong Learning Tendency" scale which has been developed by Gür-Erdoğan and Arsal, 2016).

Validity and Reliability of the Scale

Lifelong Learning Tendency Scale comprises of 17 articles. The scale has two different dimensions. (1) Willingness to learn and (21) Openness to Improvement. The articles of the scale are positive sentences. The Lifelong Learning Tendency Scale has been prepared as five option Likert approach. The options are (1) I definitely do not agree, (2) I do not agree, (3) I am neutral, (4) I agree and (5) I definitely agree. The parameter validity of the scale has been computed as .71.

The Cronbach's alpha internal consistency coefficient related to the reliability of the scale is .86. In addition, test repetition reliability coefficient is calculated as .76. These coefficients show that the scale is sufficiently valid and reliable to measure the lifelong learning tendency (Erdoğan an Arslan, 2015).

Data Gathering Process

Initially, the pre-test has been applied both for the experimental and control group. Following, the experimental group has studied through distance education for 4 weeks. The control group also has studied face to face for 4 weeks. Sectoral Solutions with distance education to the experimental group; Computer networks course was given to the control group. The purpose of these two trainings is that the theoretical courses do not have practical courses. A directional measure of the effects of life learning length. It is equal in terms of aspects that will affect the lifelong learning process. These two courses were given by the same faculty member. By the end of the process, both groups are subjected to post-tests. Before the responses of the participants to the scale are received, they have been generally informed about the objectives of the study. The scales are delivered to the participants as an online form. The researchers have informed the participants about the importance of realistic responses which would contribute to the scientific development. The completion of the responses has lasted 10 minutes averagely. All the participants have joined the study as volunteers.

Analysis of the Data

In the first place, it has been analyzed if the study data had met the normality hypothesis. The kurtosis and skewness coefficients are considered for the normal distribution test. The normality test conducted has given kurtosis and skewness coefficients between +/-1.0 whereas the distribution is understood to not extremely deviate from the normal. The independent t-test (unpaired t-test) has been performed to calculate the differences of the pre-test and post-test points of the groups.

Findings

This study has established the lifelong learning tendencies of the students studying and not studying through distance education. The obtained data has been tabulated in line with the sub-problems.

1. *The Findings related to the Lifelong Learning Pre-Test Points of the Experimental and Control Group Participants*

An unpaired t-test has been conducted to establish the pre-test point differentiation of Experimental and Control groups in relation with their lifelong learning tendencies. The results are given under Table 4. The pre-test and post-test scores of the experimental group regarding lifelong learning are given in table 5.

Table 4. The results of the conducted unpaired t-test to establish the pre-test point differentiation of Experimental and Control group participants in relation with their lifelong learning tendencies.

Group	N	$\bar{x}$	Sd	sd	t	p
Experimental Group	131	2,36	,29			
				249	,87	,38
Control Group	120	2,49	,33			

Table 5. Pre-Test And Post-Test Scores of The Experimental Group on Lifelong Learning

Experimental Group	N	$\bar{x}$	sd	df	t	p
Pre-Test		2,36	,29			
	131			130	-11,71	,000
Post-Test		3,23	,79			

When examined the Table 4, it may be seen that the point of the control group ($\bar{x}$=2,49) is higher than the point of the experimental group ($\bar{x}$=2,36). However a statistically significant difference between the pre-test points of the experimental and control groups, which have been conducted before the study in relation with their lifelong learning tendencies, could have not been spotted [t(249)=,87; p>.05]. It can be claimed that no statistically significant difference has emerged between the experimental and control group since an unbiased appointment procedure had been observed. Moreover, when examined the Table 5 the absence of such a difference between the pre-test points may be related to the fact that both groups had not experienced any distance education beforehand. A significant difference was found between the pre-test and post-test scores of the experimental group regarding lifelong learning skills.

2. *The Findings related to the Lifelong Learning Post-test Points of the Experimental and Control Group Participants*

An unpaired t-test has been conducted to establish the post-test point differentiation of Experimental I and Control I groups in relation with their lifelong learning tendencies. The results are given under Table 6. The pre-test and post-test scores of the control group regarding lifelong learning are given in Table 7.

Table 6. The results of the conducted unpaired t-test to establish the post-test point differentiation of Experimental and Control group participants in relation with their lifelong learning tendencies

Group	N	$\bar{x}$	Sd	Sd	t	p
Experimental Group	131	3,23	,79			
				249	11,17	,00
Control Group	120	2,32	,42			

Table 7. Pre-Test And Post-Test Scores of The Control Group on Lifelong Learning

Control Group	N	$\bar{x}$	sd	df	t	p
Pre-Test		2,36	43			
	120			119	,334	,739
Post-Test		2,32	,42			

When examined the Table 7, a statistically significant difference has been seen between the post-test points of the experimental and control groups related to their lifelong learning tendencies [t (249) =11,17; p>.05]. In line with the obtained data, it may be seen the point of the experimental group ($\bar{x}$ =3,23) is higher than the point of the control group ($\bar{x}$ =2,32) by the end of the study. A significant difference was found between the pre-test and post-test scores of the experimental group regarding lifelong learning skills. It can be said that the digital literacy abilities of the experimental group have also strengthened thanks to the distance education process of eight weeks. That is to say, the experimental group participants might have become more aware that the education may be realized also in different modes. Accordingly, the experimental group may be claimed to be inclined for lifelong learning.

Considering the several articles of the scale; it has been understood that the participants had (i) been in need of establishing their learning strategies, (ii) become aware of their self-responsibility for the learning process, (iii) perceived the capability of internet to recognize the different cultures and (iv) required to receive training/education for the titles they have been showing interest or feeling inadequate.

Discussion, Conclusion and Future Directions

The object of this study is to establish the impacts of the distance education on the lifelong learning tendencies of the students. It is critical for the individual to transfer the skills, information and experiences received through their education to the real life. The distance education offers the opportunity to learn at any time and without a regard to the space, time and age. In addition to that, the flexibility benefit of the distance education makes it also support the education of the masses (Bozkaya, 2006). At the same time, the distance education gifts a new dimension to the education of the adults i.e. focuses on the concept of the lifelong learning. That is because; for the individuals who may not continue their conventional/formal education due to several possible reasons, the distance education gains importance (Akyürek, 2020).

A difference could not be spotted between the pre-test points of the experimental and

control groups related to the lifelong learning tendencies thereof. However, the experimental group participants have undergone a 4 weeks of distance education and they have demonstrated a significant difference in the post-test points. Thus, they have tended to improve themselves for lifelong learning inclinations. In the research results of Diker-Coşkun, Demirel (2010), it was determined that the lifelong learning tendencies of university students are low. Demirel (2009) claims that in this age of information each individual may have the skill to learn how to learn; whereas, in other words, may use the existing technology to effectively access the ever-updating information from different sources and, finally, acquire the skills of interpreting the accordingly accessed information. It is also claimed that the individuals with lifelong learning tendency have been favoring self-organization skills, high level of thinking abilities, problem solving capabilities as holding a control over informatics technologies and the distance education assists the lifelong learning (Yıldız, 2020). The distance education enables the learners to proceed in line with their own learning pace; i.e. canalizing the learners to a lifelong learning tendency.

The post-test points have shown that the experimental group had developed and focused on certain tendencies such as establishing their own targets, needing to access the required sources, determining for learning strategies, showing an interest for learning new things, being able to self-organization and problem solution which all such tendencies known to support the lifelong learning. Polat and Odabaş (2008) have proved that the individual tending to lifelong learning had been holding capabilities to reach the key information to solve a faced new problem, to adapt themselves for novel situations and to update the acquired data in time. Moreover, the individuals tending to lifelong learning have been seen to hold the skills required for planning and regulating their own learning processes (Knapper and Cropley, 2021). In addition, according to Diker Çoşkun and Demirel (2012), lifelong learning may not be realized without a wish to learn. In the study of Arugaslan and Çivril (2022), students obtained results that the distance education process increases the quality of lifelong learning activities and contributes to their personal development. Çavuşoğlu and Acar (2020) investigated the relationship between students' views on distance education and their lifelong learning levels. As a result of the study, it was seen that there was a positive relationship between the distance education and lifelong learning scores of the students.

Consequently, the study has shown that the individuals who understand the nature of the distance education and join such process had had lifelong learning tendencies. Expressing the importance of the distance education for the development of lifelong learning skills and inclusion of the former to the existing learning processes should be understood as a critical contribution to the lifelong learning concept.

In line with such conclusions, the following recommendations are made.

- Besides the distance education perceptions of the learner, the improvement of the digital literacy skills will also contribute to the lifelong learning process. Accordingly, the curriculums should include the digital literacy courses since a concrete need of our age.

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