

Available online at www.sciencedirect.com**ScienceDirect**

Procedia - Social and Behavioral Sciences 116 (2014) 2030 – 2038

Procedia
Social and Behavioral Sciences5th World Conference on Educational Sciences - WCES 2013

Studying Level of Awareness of Teachers in terms of Their Lifelong Learning Skills

Nurhayat ÇELEBİ^{a*}, Hatice ÖZDEMİR^b, Özge ELİÇİN^c^aAssociate Professor, TR.Marmara University Education Faculty, Educational Science of Department, Istanbul 34722, Turkey^bMaster Student, TR.Marmara University Education Faculty, Educational Science of Department, Istanbul 34722, Turkey^cLecturer, TR.Maltepe University Education Faculty Special Education Department, Istanbul 34854, Turkey

Abstract

The purpose of this study is to find out perceptions of the teachers about lifelong learning abilities and levels of using social media tools. Lifelong learning capability of teachers is a factor which supports career development of teachers. The model of the research was descriptive survey. The research was carried out with 184 teachers who participated in the summer seminar organized by the Turkish Ministry of National Education for primary school teachers in 2011 summer. Questionnaires were used to collect data. Lifelong Learning Scale were developed by researchers. Validity of the survey was ensured by consulting to expert opinion. Cronbach's alpha reliability of lifelong learning scale of these research was .823. Concerning the analysis of data, average, percentage, t test and one-way ANOVA, Tukey HSD and Mann-Whitney U test were used as statistical technique. According to the results of the survey, teachers didn't utilize enough information technologies. Only a few teachers used computer to prepare lessons and improve themselves in professional terms. Yet, it was understood that young teachers made endeavor to improve themselves. Organizational support was also required to ensure professional development of teachers.

© 2013 The Authors. Published by Elsevier Ltd. Open access under [CC BY-NC-ND license](https://creativecommons.org/licenses/by-nc-nd/4.0/).

Selection and/or peer-review under responsibility of Academic World Education and Research Center.

Keywords: Lifelong learning, European Union programs, social media, information literacy.

1. Introduction

Science and technology have significant influence on social life and it also changes structure and function of social organizations. In parallel with these changes, educational institutions should prepare themselves to meet changing and improving social, cultural, economic and technological requirements and conditions.

Depending on change, information is expeditiously increasing, while current information is losing its credibility with the same speed. These improvements also offer new opportunities to achieve social and individual welfare for of mankind (State Planning Office, 2008).

* Corresponding Author: Associate Professor Nurhayat Çelebi. Tel.: +90-216-345-4705

E-mail address: nurcelebi@marmara.edu.tr

Lifelong learning is an approach including knowledge, abilities and attitudes, as well as all of the learning activities of persons personal, social or employment-related (Önal, 2010). Lifelong learning education is carried on through profession-based education. Consistent with this, active citizenship, personal development, competitiveness and employability are also covered by philosophic field of lifelong learning and is continued throughout life (Aspin & Chapman, 2001). Lifelong learning includes formal and common learning courses which enable learning of technical education and abilities, professional abilities gained at workplace, as well as learning which results in acquisition of other abilities (European Council, 2000; Önal, 2010). Lifelong learning process incorporates the abilities of perceiving differences, reasoning, following innovations, utilizing from information centers and using the technology. Therefore it is important to introduce individuals to the society, who are capable of using this process actively (Harste, 2003; Kist, 2004; Lankshear & Knobel, 2003; Lankshear & Knobel, 2006).

Initiatives related to accomplishment of the idea of lifelong learning have been launched by UNESCO, OECD and European Council in 1970s. Following the meeting held in Lisbon, Portugal on 23-24 March 2000, European Union focused on lifelong learning among the other decisions and information, ability and competency development targets of all individuals have been set forth within an approach associated with person, society and employment. Education programs that Turkey is about to attend before and after full membership have significant importance in improving educational standards of Turkey to EU level. In this frame, the projects on Reinforcement of Professional and Technical Education, Socrates, Leonardo da Vinci and Youth Programs for Europe are of great importance (SPO, 2007; Megep/Svet, 2007 & UNESCO, 1996).

Turkey's nomination process started with Helsinki Summit in 1999. Concerning the activities carried out since 2000, "Professional Competency Organization" has been established and "National Competency Frame" has been prepared in lifelong learning professional education. Approved by Higher Planning Council in June of 2009, lifelong learning strategy document and its supplement gained momentum to lifelong learning approach works for compliance with technological improvements, as well as instability in labor market and employment problems associated with the change in Turkey's lifelong learning strategy action plan (Tortop, 2010).

Usage of information technologies, particularly computers and internet in daily life makes time and space independent with regard to distribution of information. Information literacy covers the activities of defining information requirement, producing searching strategies, accessing information sources, reaching necessary information from these information sources, analyzing, interpreting and evaluating the information with a scientific principle in the process of solving the problem of knowledge acquisition which surfaces when the need for knowledge is experienced (Demiralay & Karadeniz, 2008). Abilities which individuals need today other than text literacy arithmetic are speaking, listening, reasoning, problem solving, creativity, teamwork, use of sources, computer literacy, visual literacy, technology literacy and information literacy etc.al., (Erdem & Akkoyunlu, 2002). Knowing how to reach and access information is an ability that individuals need in lifelong learning. Individuals must be information literate in order to obtain the intellectual capital required for their works in their free time and when they are on their own (Hancock, 2005). Defined as the ability to access and use the information, information literacy constitutes the main source of lifelong learning. Educational institutions undertake the most important responsibility in this regard.

Therefore, in today's society, educational institutions are responsible for providing students with abilities that will ensure continuity of learning process (Aksoy, 2008). For this purpose, it is possible to mention three main functions of lifelong learning: learning for economic development, learning for personal development and realizing oneself, learning for social inclusion, democratic approach and action (Toprak & Erdoğan, 2012).

Teachers should have lifelong learning abilities to teach their students these abilities. Therefore teachers working at schools must have already learnt lifelong learning abilities (Selvi, 2011). Teachers should believe that involvement in various projects is essential for their professional careers (Fontelles & Enestam, 2006). Teachers have a role in determination of efficiency of implementation of innovations and changes at the school level. Capacity to implement

the changes at school level mainly depends on teachers (Karip & Köksal, 1996). According to the International Society for Technology in Education (ISTE) working in the field of teacher standards; it is emphasized that teachers continuously should improve their professional practice, model lifelong learning, and exhibit leadership in their school and professional community by promoting and demonstrating the effective use of digital tools and resources. Turkey is getting one of the developing countries which pass through the process of compliance with information age and importance of information literacy of teachers is increasing in Turkey. Therefore it may be helpful to determine the level of development of social media tools and lifelong learning abilities of teachers within scope of this study. For this purpose we have tried to answer the questions below:

1. What is the purpose of using social media tools by teachers and how frequent do teachers use them?
2. What is the level of the perception of teachers with respect to lifelong learning abilities?
3. Do the perception levels of teachers with regard to lifelong learning abilities variable depending on a) gender b) marital status c) professional experience d) education level?

2. Method

Model of the research is descriptive survey model. The population of this study was 562 classroom teachers who participated in seminars organized by Istanbul- Üsküdar District National Education Directorate under Turkish Ministry of National Education of June in academic years 2011-2012. No sampling was performed when determining the working group. Questionnaires were distributed to 200 volunteer teachers who participated in the course, yet, the number of questionnaire forms that were evaluated was 184. Questions in the form were developed by researchers and the items' pool was prepared. Three experts were consulted for confirming content validity and a small group was used for pilot application after necessary arrangements were made. The questionnaire form was given its final shape in line with recommendations. The questionnaire form consisted of two parts. In the first part, there were 6 questions related to personal information, in addition to 14 open-ended questions which were developed to reveal lifelong learning activities of teachers, as well as purpose and frequency of using social media by teachers. In the second part, there were 13 items and formed as 5 items Likert type, where lifelong learning approaches of teachers and their effect on professional development were researched. Alpha reliability factor of these items was .823. These 13 items were prepared in three sub- dimensions. These sub- dimensions are "professional development, personal development and institutional development" (see table 1). Data obtained from the survey was evaluated in SPSS 16.0 package program. Concerning the analysis and interpretation of data, percentage, frequency, arithmetic average and standard deviation was used. Regarding sub dimensions where variances showed homogenous dispersion, t test and one-way ANOVA were utilized, while Tukey HSD was used for significant dimensions. Mann Whitney U test was used for situations where variances were not homogenous. Error margin was determined as $p=0.05$ in respect of group differences.

3. Findings

3.1. Findings related to personal information: 82,6% of (N=152) participants were female, while 17,4% of (N=32) them were male. 73,9% (N=136) of participants were married, while 26,1% (N=48) of them were single. Concerning professional experience, 45,1%(N=83) of participants had a professional experience of less than 10 years. Concerning education level, 75,5% (N=139) of teachers had bachelor's degree.

3.2. Opinions of teachers related to lifelong learning: According to the findings of the resources are the answers to open-ended questions related to lifelong learning of teachers. In line with these questions, half of the teachers stated that they attended lifelong learning activities, while the other half stated that they did not receive any support related to lifelong learning activities.

45,1% (N=83) of teachers stated that they had a plan for personal career development, 53,3% (N=98) stated that they did not have any plan, and 3 persons did not answer this question. 13,6% (N=25) of teachers stated that they participated in EU supported programs, while 83.4% (N=153) of them did not participate in any program and 6 persons did not provide any opinion to this question.

70,1% (N=123) of teachers stated that their career would be improved with their participation in a project related to lifelong learning activities (in particular EU supported projects and activities, 17,9% (N=33) of them did not have any opinion in this regard, 9,2% (N=17) of them stated that they did not have sufficient time, while 5 persons did not provide any opinion. 62,0% (N=114) of teachers found in-service training programs beneficial for their career development, while 38% (N=70) of them stated that they did not believe that such trainings would be beneficial.

Teachers mostly use Google (60%) and Yahoo (16%) as their search engines, while percentages of using other programs (Arabul, Netbul, Superonline, Eric, Excete)is between 2% and 13%. Almost half of teachers never use Twitter, Diaries, Video Sharing Sites (VSP) and Podcasts, while frequency of using Facebook (85,2%) and Messenger (69,9%) is higher. However, teachers use Facebook (67,2%) and MSN (47,5%)for communication and entertainment purposes. Daily usage frequencies of these web sites are very low. 30,0% of teachers use Facebook and MSN once a week or a couple of days in a week. Teachers (70%) use social media tools for 0-1 hour a day. Only 2-12% of teachers use computers to prepare their lessons, provide information and for professional development. Most of the teachers don't utilize from libraries (86,3%).

Table 1, below gives the answers to 13 items which were prepared in Likert type in order to receive opinions of teachers related to lifelong learning abilities. Accordingly, teachers gave the answer "completely agree" to expressions in sub dimensions related to professional development ($\bar{X}=4,32$) and personal development ($\bar{X}=4,33$), while they gave the answer of "moderate" to expressions related to institutional development ($\bar{X}=3,65$). This means that sufficient support is not provided for professional development of teachers at their institutions. Mostly preferred expression in sub dimension of "professional development" is "acquisition of new professional abilities increase professional reputation" ($\bar{X}=4,60$). Concerning "personal development" sub dimension, it is "my self-confidence will increase if I go to lifelong learning courses in my free time" ($\bar{X}=4,61$). Regarding "institutional development" sub dimension, it is the expression of "my commitment to my job will increase if I attend seminars, courses and similar activities which my institution organize with regard to my job ($\bar{X}=4,30$)". The expression that "I find in-service training programs organized by the Turkish Ministry of National Education which are performed as remote training useful ($\bar{X}=2,90$)" received moderate acceptance by teachers.

Table 1. Dispersion of opinions of teachers related to awareness levels related to lifelong learning according to sub-dimensions

Sub dimensions of lifelong learning			
Items	1. Professional development	\bar{X}	Ss
48	Learning foreign language will improve my professional career	4,14	1,17
49	Even though I want to go to libraries to access new information, I cannot find time to do it.	4,28	.70
51	My communication with students will be facilitated by using new methods and techniques during my lessons	4,25	.83
53	I believe that acquisition of new professional abilities will increase my professional reputation	4,60	.68
Total		4,32	.61
Items	2. Personal development		
50	Communication tools related to social media result in loss of time	4,38	.63
52	My self-confidence will increase if I go to courses related to lifelong learning in my free time.	4,61	.65
55	Using information technologies colors up my life.	4,36	.65
57	I believe that having a hobby will change my view of life.	4,30	.84
58	I follow various courses which may gain an occupation to me during my retirement.	4,25	.90
59	I feel that I realized my abilities with lifelong learning	4,11	.94
Total		4,33	.81
Items	3. Institutional development		

54	My commitment to my job will increase if I attend seminars, courses and similar activities which my institution organize related to my job	4,30	.89
56	My institution is effective in guiding my professional career	3,74	1,22
60	I find in-service training programs organized by the Ministry of National Education which are performed as remote training useful	2,90	1,49
Total		3,65	,65

3.3. Determining the level of awareness of teachers related to lifelong learning with independent variants

Below are the differentiations between sub dimensions and independent variants of teachers related to lifelong learning.

Table 2. Results of t-test related to the sub dimensions of depending on gender variable of teachers

Sub dimensions	Gender	N	\bar{X}	Ss.	t	Df	P
Professional development	Female	152	3,82	.421	3,72	182	P<.05
	Male	32	3,47	.560			
Personal development	Female	152	4,75	.545	4,04	182	P<.05
	Male	32	4,32	.760			
Institutional development	Female	152	3,07	.606	2,92	182	P<.05
	Male	32	2,70	.761			

It was understood that variances were homogenous among sub dimensions by gender and marital status variants according to the results of Levene test and significant ones were showed in the table. A significant difference was found out between sub dimensions of professional development [$t(182)=3,72$; $p<.05$], personal development [$t(182)=4,04$; $p<.05$] and institutional development [$t(182)=2,92$; $p<.05$] by gender. This difference is in favor of female teachers. Compared to male teachers, female teachers believe that lifelong learning supported training has positive effect on their personal and professional development (Table 2).

No significant difference was found out according to t-test results with regard to the sub dimensions of professional development [$t(182)=-,170$; $p>.05$], personal [$t(182)=-,738$; $p>.05$] and institutional development [$t(182)=-1,06$; $p>.05$] for married and single teachers by marital status of the same.

The variance did not show homogeneity in professional development (Levene=3,40; $p=.05$) and personal development (Levene=3,64; $p=.05$) sub dimensions by professional experience. So Mann Whitney U test was implemented. Concerning the sub dimension of corporate development, it was seen that the variances were homogenous according to the Levene test.

There was no any significant difference between job experience and institutional development according to unilateral ANOVA results [$F(2,181)=,296$; $p>.05$]. However, there is a significant differentiation between professional development ($U=1608$; $p<.05$) and personal development ($U=1638$; $p<.05$) according to Mann Whitney U. This differentiation is given in Table 3.

Table 3. Mann -Whitney U results concerning sub dimensions by job experience

Sub dimensions	job experience	N	Rank mean	Rank total	U	P	Difference
Professional development	10 years and less	83	72,63	6028,00	1608,00	P<.05	1-3
	21 and higher	50	57,66	2883,00			
Personal development	10 years and less	83	72,27	5998,00	1638,00	P<.05	1-3
	21 and higher	50	58,26	2913,00			

According to table 3, such difference exists between those whose experience being less than 10 years and those whose experience bring 21 years and above in both of the groups. The reason is that teachers whose professional experience being rather less tend to improve themselves much more, compared to teachers whose experience bring deep.

Concerning the sub dimension of ‘professional development’ by educational status (Levene=6,989; $p < .001$), it was identified that the variances did not show homogenous dispersion, and no significance was observed according to significance calculation Mann Whitney U ($U=1,036$; $p > .05$). Yet, variances were homogenous in “personal development and institutional development” sub dimensions according to Levene test. According to one way ANOVA results, there was not any significant difference between educational status and personal development [$F(2,181)=1,87$; $p > .05$]. On the other hand, there was a significant difference between educational status and the sub dimension of “institutional development” [$F(2,181)=3,10$; $p < .05$]. According to Tukey HSD, this difference exists between university graduate teachers and teachers who study for master or doctorate degree. Accordingly, teachers who study for master and doctorate degree expect their institutions to support their development (Table 4).

Table 4. One way ANOVA results concerning the sub dimension of institutional development by the independent variable of education

Sub dimensions	Education	N	\bar{X}	Ss	F	P	Difference
Institutional Development	University	139	2,98	.688	3,10	$P < .05$	1-2
	Post graduate - doctorate	23	3,29	.473			
	Education Institute	22	2,84	.445			
	Total	184	3,00	.648			

4. Result and Discussion

Results of this research reveal that teachers don’t have the abilities expected from a modern teacher with regard to the use of computer technologies and access to information related to lifelong learning, but that their lifelong learning perceptions were high. Only half of teachers stated that they attended lifelong learning activities. 13,6% of teachers participated in EU supported projects.

It was understood that teachers mostly used “Google” and “yahoo” as their search engines, and that they did not use other search engines frequently. More than 70% of teachers use social networking sites such as Facebook and MSN. However, their daily use frequency is about 1-2 hours. In addition, only 10% of teachers utilize for activities such as preparing lesson materials and lecture notes for topics that will be introduced to students. It is also revealed that teachers don’t use libraries as well. Similar findings were obtained in the research of Başaran (2005) which was carried out with candidate classroom teachers. However, this research group is composed of young students. According to the this research 80% of candidate classroom teachers mostly use computers further purpose of processing of information. On the other hand, abilities of teachers to process numbers, images, make presentations, and to use presentation and voice programs of the young generation are quite weak (20%).

The perception level of teachers in respect to lifelong learning is high. According to the research of Demiralay (2008) which was carried out to analyze information literacy levels of candidate teachers in Turkey, it was revealed that information literacy and relevant self-sufficiency perceptions of most of the teacher candidate were high. However, in this research, teachers gave the answer of “completely agree” to expressions in sub dimensions related to professional development and personal development, while they gave the answer “moderate” to expressions related to institutional development. This means that sufficient support is not provided for professional development of teachers by their institutions. The expression which teachers agree the least is within the sub dimension of “institutional development”. According to teachers, in-service training programs of the Turkish Ministry of National

Education which is performed as remote training is not useful. Turkish Ministry of National Education offered in-service training program as remote training in certain cities as a pilot application in 2012. However, it was concluded that teachers did not find this program useful. According to the findings of this research, teachers believe that “in-service training is important for the development in their profession and organizational commitment”. This finding is similar to findings of the research which was carried out to determine in-service training requirements which was organized as web-based by the Turkish Ministry of National Education (MEB, 2011). According to the researches of Gültekin, Çubukçu & Dal (2010); Hamdan (2003) and Özdemir (2000), primary education teachers need in-service training in certain fields including learning, student recognition and guidance, planning the teaching, method and technique, measurement and evaluation, all of which are instrumental in improving professional competencies of teachers.

Considering “gender” as the independent variable in respect to lifelong learning of teachers, significant differentiation was identified between sub-dimensions of professional development, personal development and corporate development in favor of female teachers. Female teachers have a more positive approach towards improving their lifelong learning abilities, compared to male teachers. Yet, no significant difference was observed between sub-dimensions by marital status. Significant differentiation was identified with regard to professional development and personal development sub dimension by professional experience. There is a difference between those who have 21 years or more experience and those who experience is less than 10 years, in both of these sub-dimensions. In addition, there is a difference between university graduates and those who study for master and doctorate in the sub dimension of “institutional development” by educational status. Both teachers who study for master and doctorate, and teachers whose professional experience is low tend to improve themselves. As professional expectations of these teachers are high, they expect their institutions to support them. Within scope of lifelong learning, considering the literature, it is understood that institutions should have appropriate equipment to provide teachers with information, skills and competencies that teachers need (Mourtos, 2003).

5. Recommendations

Following recommendations can be made based on this research;

- Involvement of teachers in EU-supported programs is about 10%. It may be useful to improve cooperation between the Turkish Ministry of National Education and non-governmental organizations within scope of EU-supported projects, where teachers can participate.
- Seminars and workshops may be organized to help self-development of teachers whose professional experience is low (in particular) within the organization of educational institutions by the University.
- Educational institutions should encourage teachers to use social media tools for the purpose of gaining information and professional development during in-service trainings.
- Teaching technologists or experts may offer service at educational institutions to support teachers in using information- communication technologies and social media tools in the teaching process.

References

- Aksoy, M., (2008). *Hayat boyu öğrenme ve kariyer rehberliği ilkelerinin istihdam edilebilirliğe etkileri: otele işletmelerüzerinebiruygulama*. Gazi University, Institute of Educational Sciences, Department of Tourism Management, Published Doctoral Thesis.
- Aspin,D.& Chapman,J,. (2001). Lifelong learning: concepts, theories and values. *SCUTREA, 31st Annual Conference.3-5 July 2001*.London: University of East London.

- Başaran, M., (2005). Sınıf öğretmeni adaylarının bilgi okuryazarlıklarının değerlendirilmesi. Evaluation of preservice primary school teachers' information literacy. Ankara: *GÜ. Gazi Education Faculty Journal*. 25(3), 163-167.
- Demiralay, R. & Karadeniz, Ş., (2008). İlköğretim öğrencilerinde bilgi okuryazarlığı becerisinin geliştirilmesi: B6 model 2. *International Conference on Innovations in the Field of Learning for the Future 2008: e-learning*, 27-29 March 2008, Istanbul: Istanbul University.
- Demiralay, R., (2008). *Öğretmen adaylarının bilgi ve iletişim teknolojilerini kullanımları açısından bilgi okuryazarlığı öz-yeterlik algularının değerlendirilmesi*. Unpublished post graduate thesis, Ankara: Gazi University, Institute of Educational Sciences.
- Erdem, M., & Akkoyunlu, B., (2002). Bilgi okuryazarlığı becerileri ve bu becerilerin öğrencilere kazandırılması için düzenlenecek öğrenme ortamlarının özellikleri. *Journal of Qafqaz University*, 9, 125-132.
- European Council, (2000) Lisbon: *Lisbon European Council Presidency Conclusions of 23-24.03.2000* Retrieved from http://ue.eu.int/ueDocs/cms_Data/docs/pressData/en/ec/00100-r1.en0.htm on 11 November 2012.
- Fontelles, J. & B. J.-E. Enestam, (2006). Recommendation of European Parliament and of the Council: of 18 December 2006 on key competencies for lifelong learning (2006/926/EC), *Official Journal of the European Union*, L 394, 10-18.
- Gültekin, M., Çubukçu, Z. & Dal, S., (2010). İlköğretim öğretmenlerinin eğitim öğretimle ilgili hizmet içi öğretim gereksinimleri. *Selçuk University Ahmet Keleşoğlu, Journal of the Education Faculty*. Issue 29, 131-152.
- Hamdan, N., (2003). *İlköğretim okullarında görevli öğretmenlerin, Milli Eğitim Bakanlığı'nın Hizmet içi eğitim faaliyetleri hakkındaki görüşleri*. Post graduate thesis. Ankara: Gazi University. Institute of Educational Sciences.
- Hancock, V. E., (1993). *Information Literacy for Lifelong Learning*. ERIC Digest CDROM Fulltext. Syracuse, New York: ERIC Clearinghouse on Information Resources.
- Harste, J., (2003). What do we mean by literacy now?. *Voices From the Middle*, 10(3), 8-12.
- International Society for Technology in Education- ISTE. (2008). *NETS for Teachers 2008*. Retrieved from www.iste.org/.../nets-for-teachers/nets-for-t, on 12.01.2023
- Karip, E. & Köksal, K., (1996). Etkili eğitim sistemlerinin geliştirilmesi. *Kuram ve Uygulamada Eğitim Yönetimi (Educational Administration-Theory and Practice)*. 2 (2), 245-257.
- Kist, W., (2004). The new literacies movement: Reading and writing in the digital age. *Independent School*, 63(4): 28-36.
- Lankshear, C. & Knobel, M., (2003). *New literacies: Changing knowledge and classroom learning*. Buckingham: Open University Press.
- Lankshear, C. & Knobel, M., (2006). Discussing new literacies. *Language Arts*, 84(1), 78-86.
- MEGEP- SVET, (2007). *Reinforcing Professional Education and Training System in Turkey*. Retrieved from www.megep.meb.gov.tr/ortak/archive/arsivhaber1.html on 11 November 2012.
- TC. Milli Eğitim Bakanlığı-The Republic of Turkish Ministry of National Education- (2011). Directorate of the Group on Supporting Professional Development (2011). *2011 "Results of the Survey on determination of in-service training requirements"*. Retrieved from <http://hedb.meb.gov.tr/>, Obtained on 11 November 2012.
- Mourtos, J. N., (2003). *Defining, teaching and assessing lifelong learning skills*. Paper presented in 33rd. ASEE/IEEE Frontiers in Education Conference, Boulder: T3B-14-19.
- Önal, İ., (2010). Tarihsel değişim sürecinde hayatboyu öğrenme ve okuryazarlık: Türkiye deneyimi. *Bilgi Dünyası*, 11 (1), 101-121
- Özdemir, S. M., (2000). *A research on in-service training requirements and effective use of education materials by teachers working at curriculum laboratory schools*. Post graduate thesis. Ankara: Gazi University. Institute of Educational Sciences.
- Selvi, K., (2011). Öğretmenlerin hayat boyu öğrenme yeterlikleri. *Uluslararası Eğitim Programları ve Öğretim Çalışmaları Dergisi*, 1 (1), 61-69.
- State Planning Office (SPO) -Devlet Planlama Teşkilatı-. (2007, 2008). *The directorate of the department of EU education and youth programs (Ulusal Ajans)* website (www.ua.gov.tr), Retrieved from 11 November 2012.
- Toprak, M., & Erdoğan, A. (2012). Yaşam boyu öğrenme: Kavram, politika araçlar ve uygulama. *Yükseköğretim ve Bilim Dergisi (Journal of Higher Education and Science)*. Volume. 2, Issue. 2, 69-92.

- Tortop, Ö., (2010). *Avrupa Birliđi hayat boyu öğrenme temel yeterlik alanları: Türkiye durumu*. Ankara: Gazi University, Institute of Educational Sciences, Department of Computer and Teaching Technologies Education, Unpublished Post Graduate Thesis.
- UNESCO (1996).The forty-fifth Session of International Conference on education. *Educational Innovation*, December, Number:89, Paris, 1996, pp.1