



ELSEVIER



Available online at [www.sciencedirect.com](http://www.sciencedirect.com)

ScienceDirect

Procedia - Social and Behavioral Sciences 182 (2015) 718 – 725

Procedia  
Social and Behavioral Sciences

4th WORLD CONFERENCE ON EDUCATIONAL TECHNOLOGY RESEARCHES, WCETR-2014

## Life-long Learning Competence Perceptions of the Teachers and Abilities in Using Information-Communication Technologies

Fezile Ozdamli<sup>a\*</sup>, Hasan Ozdal<sup>a</sup>

<sup>a</sup>*Department of Computer Education and Instructional Technologies, Near East University, Nicosia, Cyprus*

---

### Abstract

The aim of this study is to determine the life-long learning competence perception and abilities in using information-communication technologies of the teachers working in primary schools. The study also aims to find out if there is a relation between the perception competence of life-time learning approach and abilities in using information-communication technologies of the teachers. 102 teachers from different age groups have formed up the study group who has been chosen randomly by the use of scanning model and “Information and Communication Technologies Skills Scale” and “Life-time Learning Competence Scale” have been used as data gathering tool. It has been determined as a result of the analysis after application that there is a relation between the perception competence of life-time learning approach and abilities in using information-communication technologies of the teachers.

© 2015 Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Peer-review under responsibility of Academic World Research and Education Center.

*Keywords:* Life-long learning, Information-Communication Technologies

---

### 1. Introduction

Every individual has different education needs towards either in his/her areas of interests, professional or intellectual development or different needs in his/her life cycle from birth to death. In addition to this, the concept of education with the changing and developing world is putting forward a necessity named as “Life-long Learning”. Even though “Life-long Learning” is generally defined as the education activities that the individual has been involved formally or informally, it is also possible to come up with different views and definitions in the literature. Klug, Krause, Schober, Finsterwald & Spiel (2014) have indicated that life-long learning approach is a process

---

\*Fezile Ozdamli. Tel.: +9-392-223-6464

*E-mail address:* [fozdamli@neu.edu.tr](mailto:fozdamli@neu.edu.tr)

containing a fast change for the individual and in profession and technical processes, it adds competences to the individual in different areas during the life cycle. Holmes (2002) has pointed out that besides life-long learning is a discipline and an approach, it contains individual development processes planned or not. Demirel (2011) and Pieri & Diamantini (2010) in his definition has indicated that life-long learning is recognizing the world and the self, acquiring new knowledge and abilities in any particular area, investing for the future, creating new things, a learning habit and a behavior. Similarly, Ersoy and Yilmaz (2009) have called life-long learning as an endless road and mentioned that it has a very important function for the development of individuals therefore for the community. In a similar definition, Preece (2013), has said that life-long learning has a comprehensive and visionary structure and has defined it as all of the activities of learning from birth to death which can be formal, pervasive and informal. Akbas & Ozdemir (2002) has indicated that there are some basic principles in the life-long learning. These principles are;

Qualitative connections must be established between the individual, society and the institutions in the life-long learning approach. In addition to this, the life-long learning must have a structure containing democratic principles and human rights.

- The creation of life-long learning activities and continuing this in a healthy way must always be maintained during all processes of education and teaching.
- The life-long learning approach must take multidirectional learning opportunity into the center. Every individual have the opportunity to have an education in accordance with his/her needs and interests.
- The life-long learning approach must encourage the individuals in the fields of their talents.
- The life-long learning approach must include the family into the education process and provide flexible structure.
- Equality of opportunity” must be one of the fundamental aims in the life-long learning approach. Ensure that you return to the ‘Els-body-text’ style, the style that you will mainly be using for large blocks of text, when you have completed your bulleted list.

Besides these fundamental principles, it has a great importance to recognize the life-long learning abilities for the continuity of education activities. Figel (2007) has arranged the life-long learning competences below as it is determined by the European Union Education and Culture Commission.

- Communication abilities in native language,
- Communication abilities in foreign languages,
- Mathematics, Science and Technology competency,
- Digital competency,
- Learning to learn,
- Social competency,
- Entrepreneurship,
- Cultural awareness,

Hursen (2011) has explained the life-long learning competencies during his doctorate thesis studies as follows:

Self-management competencies: to be able to take decisions by oneself for professional development, to realize the lacking courses during personal development process, to do self-assessment during learning process, to do cooperative works, to be able to motivate oneself for professional development and new learning, undertaking personal responsibilities at team work, providing active attendance at the activities, finding creative solutions to the problems which can be faced during professional life, orientation to the new ideas, managing the projects done for professional development and working continuously for learning a new topic.

Learning to learn competencies: Determining the existing opportunities for professional development and knowing the necessary activities for learning, asking questions without hesitation during learning process, to be able to choose the important items and document while learning a new subject, realizing the problems that may come up during the learning process, using the tongue effectively during the learning process and to be able to empathy.

Initiative and entrepreneurship competencies: Being able to decide on any subject, being able to adapt into information change during professional life, being able to turn ideas into acts for professional development, planning the activities which will meet the knowledge requirements during professional life, being able to direct himself/herself in order to meet certain goals and choosing the learning atmosphere, being able to use the acquired knowledge to reach goals set, being able to produce creative solutions for problems faced.

**Information Retrieval Competency:** For the retrieval of information process, being able to establish a healthy communication, being able to convey thoughts freely about any subject, being able to convey information via e-mail, being able to use the ways to reach information in the internet, being able to use cell phones to reach to new information, being able to use social networks in order to reach information.

**Digital Competency:** Being able to use computers to save information, being able to use internet and other communication tools.

**Decision Making Competency:** Being able to assess to what extent goals set have been reached, Being able to solve all the problems before career development, assessing the risks of professional development process, being able to assess the time while learning a new subject.

As it is indicated above, it has a great importance that the individuals have the above mentioned competencies for the continuity of life-long learning approach. It is especially important for the teachers who have an important place in the development of the society, as a necessity of life-long learning approach they are expected to be open to learning, to renew, improve himself/herself, to adapt knowledge change and innovations and to have the abilities of using new information-communication technologies in teaching/learning activities as an advantage of contemporary education comprehension.

Information and communication technologies are all of the visual, audio and printed tools which enable reaching, designing and developing the information and provide multiple learning ambiances in learning/teaching activities (Ozgen, 2005; Kara, 2011; Gorghiu, Gorghiu, Dogan & Gerceker, 2013). These aspects of information and communication technologies has started to be seen as a necessity in the education ambiances and it is supported by the scientific studies that it is providing a positive contribution to the learning ambiances in terms of academic successes of the students, behaviors towards the lecture and their performances.

Integration of the information and communication technologies to the education ambiances is providing a great contribution in achieving the determined goals in teaching and making learning active and permanent (Cartwright & Hammond 2003; Hew & Brush, 2007). In similar to this, Ozdamli & Uzunboylu (2008) and Tavukcu, Gezer & Ozdamli (2009) have indicated that the information and communication technologies provide opportunities for the students to produce projects by working cooperatively in internet supported ambiances and mobile learning tools.

It is thought that the developing information and communication technologies will be increasing the life-long learning competencies. Therefore, the aim of the study is to find out if there is a relation between life-long learning competencies and abilities in using information and communication technologies. In order to achieve this aim, answers to the following questions have been sought:

1. How are the competency perceptions of teachers towards the life-long learning approach?
2. What is the skill level of the teachers in using information and communication technologies in education?
3. Is there any relation between competency perceptions of teachers towards the life-long learning approach and skills in using information and communication technologies?

## 2. Methodology

A quantitative method, relational scanning model has been used in this study, where the relation between competency perceptions of teachers towards the life-long learning approach and skills in using information and communication technologies has been assessed.

### 2.1. Work Group

The work group of this study is composed by all the teachers (102 persons) of a private primary school in the Turkish Republic of Northern Cyprus. The demographic data of the teachers included in this work group has been given in Table 1.

Table 1. Demographic Data of the Teachers

Sex	Number (f)
Male	26

Female	76
Age	Number (f)
20-25	8
26-30	12
31-35	13
36-40	11
41-45	7
46-50	14
51-55	30
56-60	5
61-65	2
Seniority	Number (f)
1-5 years	13
6-10 years	14
11-15 years	13
16-20 years	12
21-25 years	1
26-30 years	14
31-35 years	31
36-40 years	4
Education	Number (f)
Teachers Collage	47
University	36
Master	19

## 2.2. Data Gathering Tool

“Life-long Learning Competency Scale” developed by Hursen (2011) and “Information – Communication Technologies Competency Scale” which was adapted into Turkish by Haznedar (2012) has been used as data gathering tool in the study. After the necessary permissions have been taken from the researchers, the application has been done.

## 2.3. Analysis of the Data

The analysis of the data gathered in this study has been done by the SPSS 16 program with appropriate statistical techniques. The analysis of the demographic data has been done by the use of “frequency (f) & percentage (%)” and for the interpretation of the data of the competency perceptions of teachers towards the life-long learning approach and skills in using information and communication technologies, arithmetic mean ( $\bar{X}$ ), standard deviation (S), lowest and highest values has been used. Pearson Correlation analysis technique has been used for the evaluation of the relation between the competency perceptions of teachers towards the life-long learning approach and skills in using information and communication technologies.

## 3. Results

In this study aimed to find out the relation between the competency perceptions of teachers towards the life-long learning approach and skills in using information and communication technologies, data collected in accordance with the set goals and sub-goals, has been analyzed and interpreted.

### 3.1. The Competency Perceptions of Teachers towards the Life-long Learning Approach

Descriptive statistical results have been given in the below table regarding the life-long learning approach of the teachers and the data has been interpreted in comparison to the similar scientific studies conducted in similar fields.

Table 2. The Competency Perceptions of Teachers Towards The Life-Long Learning Approach

	Min	Max	Mean	SS
--	-----	-----	------	----

Self-Management Competencies	3,08	5,00	4,16	,460
Learning to Learn Competencies	2,92	5,00	4,09	,489
Initiative and Entrepreneurship Competencies	3,10	5,00	4,17	,461
Information Retrieval Competencies	2,33	5,00	4,10	,693
Digital Competencies	1,17	5,00	3,75	,878
Decision Making Competencies	2,00	5,00	3,84	,692
General Total	2,88	5,00	4,09	,453

According to the data given in Table 2, grand average score of the competency perceptions of teachers towards the life-long learning approach has been calculated as 4.09. According to the collected data, it has been found out that the Initiative and Entrepreneurship Competency is the highest competency field and Digital Competency is the lowest competency field of the teachers. This result is indicating that the competency perceptions of teachers towards the life-long learning approach are in “good” limits.

The competency perceptions of teachers towards the life-long learning approach can be seen clearer and more tangibly in Figure 1.



Figure 1. The Competency Perceptions of Teachers Towards The Life-Long Learning Approach

Unlike the achieved findings; in the doctorate thesis study of Coskun (2009) it has been found out that the tendencies of the university students towards life-long learning approach are low. In a study done by Ozcan (2011), it has been found out that the competency perceptions of primary school teachers towards the life-long learning approach are high. Similarly, in a study conducted by Davis, Taylor & Reyes (2013), it has been found out that the life-long learning tendencies of the nurses are positive. In a study conducted by Izci & Koc (2012), it has been found out that the life-long learning tendencies of the teacher candidates are in positive direction.

### 3.2. The Abilities of the Teachers in using Information-Communication Technologies in Education

Descriptive statistical results regarding the abilities of the teachers in using information-communication technologies have been given in Table 3.

Table 3. Abilities of the teachers in using information-communication technologies

	Min	Max	Mean	SS
Information Technologies	1,00	5,00	3,43	1,22
Communication Technologies	1,00	5,00	3,70	1,23
Mobile Technologies	1,00	5,00	3,51	1,31
Total	1,00	5,00	3,52	1,18

According to the data given in the above table, it has come through that the average score of the teachers in using information, communication technologies and mobile technologies are in a good level. According to the same data, it has been calculated that the average score of the teachers regarding their abilities in using information and communication technologies is 3.52. According to the collected data, the abilities of the teachers in using information and communication technologies are in the limits of “good”. According to the same data, among the general information and communication technologies competencies, the ability of the teachers in using information technologies is the lower competency field. Accordingly, the teachers are having lack of knowledge-ability in creating new folders in a computer, connecting a printer, changing equipment parts of computer, making an application in word processors, using electronic tables, making operation in presentation programs. The abilities of the teachers in using information and communication technologies can be seen more clearly in Figure 2.



Figure 2. The Abilities of The Teachers in Using Information and Communication Technologies

Similar to these findings, in a study conducted by Kara (2011), it has been seen that the abilities of the teachers in using information and communication technologies are generally in a good level. In a study done by Coklar (2012), in conclusion it has been reached to the bottom line that the teachers’ level is at satisfactory regarding the information and communication technologies which are among general professional competencies. Similarly, it has been found out that the abilities of the university students in using information and communication technologies are better than the teachers in a study researched by Haznedar (2012).

### 3.3. The Competency Perceptions of Teachers towards the Life-long Learning Approach and Abilities in Using Information-Communication Technologies in Education

Pearson correlation analysis technique has been used in order to find out if there is a relation between competency perceptions of the teachers towards life-long learning approach and abilities in using information-communication technologies. The data acquired as a result of the analysis are given in Table 4.

Table 4. Competency Perceptions of The Teachers Towards Life-Long Learning Approach And Abilities in Using Information-Communication

	Technologies	
	Lifelong Learning	Information-Communication Technologies
Pearson Correlation	1	,510**
Sig. (2-tailed)		,000
N	102	102
Pearson Correlation	,510**	1
Sig. (2-tailed)	,000	
N	102	102

After the examination of the findings in Table 4, we can talk about existence of a positive, medium degree of relation between the competency perceptions of the teachers towards life-long learning approach and abilities in using information-communication technologies [ $r(102)=0.510$ ;  $p<0,01$ ]. According to this finding, we can say that there is a meaningful relation between the competency perceptions of the teachers towards life-long learning approach and abilities in using information-communication technologies.

#### 4. Conclusion and Suggestions

It is determined in the study that the competency perceptions of the teachers towards life-long learning approach are on a high level. This can be assessed as a positive result but the competency perceptions and opinions of the teachers towards life-long learning approach must be assessed with different variables in similar studies in the coming future. However, activities like seminars, conferences and panels can be organized to encourage and develop teachers' awareness towards being life-long learning individuals which is a necessity of their professional and social life.

This study has been carried out with a group 102 teachers. It is highly suggested that larger groups to be chosen for future studies. Similar sort of studies can also be done with different profession groups in order to research the competency perceptions and their views towards the life-long learning approach

It has been seen that the ability level of the teachers in using information and communication technologies is at a good level. However, it is found out that the ability level of the teachers in sub-dimension of using information technologies is below the necessary average. The reasons of this situation can be researched in future studies and more concrete data can be presented.

In this study, it has been reached to the conclusion that there is a positive, meaningful relation between the competency perceptions of the teachers towards life-long learning approach and abilities in using information-communication technologies. According to this result, we can come up with an assessment that the competency perceptions of the teachers towards life-long learning approach are affected from abilities in using information-communication technologies or affected from the information and communication technologies. The factors that are affecting life-long learning approach of the teachers and their abilities in using information-communication technologies can be researched in detail in future studies.

#### References

- Cartwright, V. & Hammond, M. (2003). The integration and embedding of ICT into the school curriculum: more questions than answers. Paper presented at the ITTE 2003 Annual Conference of the Association of Information Technology for Teacher Education, Trinity and All Saints College, Leeds.
- Coklar, M. (2012). Genel Ggretmen Yeterlikleri Icerisinde Bilgi ve Iletisim Teknolojileri: Afyonkarahisar Ili Ornegi. Yuksek Lisans Tezi, Necmettin Erbakan Universitesi, Egitim Bilimleri Enstitusu, Konya.
- Coskun, Y. D. (2009). Universite Ogrencilerinin Yasam Boyu Ogrenme Egilimlerinin Bazi Degiskenler Acisindan Incelenmesi. Doktora Tezi. Hacettepe Universitesi, Sosyal Bilimler Enstitusu, Ankara.
- Davis, L., Taylor, H., & Reyes, H. (2013). Lifelong learning in nursing: A Delphi study. *Nurse Education Today*, 34(3), 441-445.
- Demirel, O. (2011). Egitimde Program Gelistirme. Ankara: Pegem Yayıncılık.
- Ersoy, A. & Yılmaz, B. (2009). Yasam Boyu Ogrenme ve Turkiye'de Halk Kutuphaneleri. *Turk Kutuphaneligi*, 23(4), 803-834.

- Gorghiu, M., L., Gorghiu, G., Dogan, Y., Z. & Gerceker, P. (2012) Promoting the Nano - Technology Concepts in secondary Science Education Through ICT Tools – the Romanian and Turkish teachers' Perceptions. *Global Journal on Technology*, 3, 577-583.
- Haznedar, O. (2012). Universite Ogrencilerinin Bilgi ve Iletisim Teknolojileri Becerilerinin ve E-Ogrenmeye Yonelik Tutumlarının Farkli Degiskenler Acisindan Incelenmesi. Yuksek Lisans Tezi, Dokuz Eylul Universitesi, Egitim Bilimleri Enstitusu, Izmir.
- Hew, K.F. & Brush, T. (2007). Integrating technology into K-12 teaching and learning: Current knowledge gaps and recommendations for future research. *Educational Technology Research and Development*, 55(3), 223-252.
- Holmes, A. (2002). Lifelong learning. Oxford: Capstone Publishing.
- Hursen, C. (2011). Ogretmenlerin Yasam Boyu Ogrenme Yaklasimina Yonelik Gorus, Tutum ve Yeterlik Algilarinin Degerlendirilmesi. Doktora Tezi, Yakın Dogu Universitesi, Egitim Bilimleri Enstitusu, Lefkosa.
- Iscitürk, G. (2012). Ogretmen Adaylarının Bilgi ve Iletisim Teknolojilerini Kabul ve Kullanmalarinin Cesitli Degiskenler Acisindan Incelenmesi. Doktora Tezi, Anadolu Universitesi, Egitim Bilimleri Enstitusu, Eskisehir.
- Izci, E. & Koc, S. (2012). Ogretmen Adaylarının Yasam Boyu Ogrenmeye Iliskin Goruslerinin Degerlendirilmesi. *Adiyaman Universitesi Sosyal Bilimler Enstitusu Dergisi*, 5(9), 101-114.
- Kara, S. (2011). Ilkogretim Okullarında Gorev Yapan Ogretmenlerin Bilgi-Iletisim Teknolojileri Yeterliliklerinin Degerlendirilmesi: Istanbul Ili Orneđi. Yuksek Lisans Tezi. Bahcesehir Universitesi, Fen Bilimleri Enstitusu, Istanbul.
- Klug, J., Krause, N., Schober, B., Finsterwald, M., & Spiel, C. (2014). How do teachers promote their students' lifelong learning in class? Development and first application of the LLL Interview. *Teaching and Teacher Education*, 37(1), 119-129.
- Ozcan, D. (2011). Evaluation of 4th And 5th Classes Teachers' Competence Perceptions towards Lifelong Learning. *International Journal of Learning & Teaching*, 3(1), 1-9.
- Ozdamli, F., & Uzunboylu, H. (2009). Attitudes of Teacher Candidates Towards Technology Supported Collaborative Learning. *Cypriot Journal of Educational Sciences*, 3(1), 28-36.
- Ozgen, C. (2005). Avrupa Birligi'ne Uye 15 Ulkede ve Turkiye'de Ilkogretim Birinci Kademe Bilgisayar Ders Programlarının Karsilastirilmesi ve Turkiye'deki Durumun Degerlendirilmesi. Yuksek Lisans Tezi, Ankara Universitesi, Egitim Bilimleri Enstitusu, Ankara.
- Pieri, M., & Diamantini, D. (2010). Teachers of life and ICT. *World Journal on Educational Technology*, 2(3), 158-168.
- Preece, J. (2013). Africa and international policy making for lifelong learning: textual revelations. *International Journal of Educational Development*, 33(1), 98-105.
- Tavukcu, T., Gezer, F., & Ozdamli, F. (2009). Determination of the Views and Success Levels Towards Spreadsheets of University Students' Studying With Blended Learning and E-Learning. *International Journal of Learning and Teaching*, 1(1), 10-15.