

## The views of shareholders on utilization of educational technologies in adult learning

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### Abstract

The purpose of this study was to reveal the views of shareholders on utilization of educational technologies in informal education institutions. A total of 10 people including 5 officers and 5 course attendees who were selected via convenience sampling which is one of purposeful sampling methods, participated in this study using qualitative research method. The study was conducted in phenomenological design, which is among qualitative research designs. Thus, a semi-structured interview form was prepared and interview technique was used to collect data in the study. The data were analyzed via content analysis technique. All the data acquired in the study were coded, various dimensions and appropriate themes for these dimensions were determined in accordance with the study purpose. Percentages and frequencies related to the themes were calculated. As a result of the study, the views of shareholders on utilization of educational technologies in informal education institutions were revealed.

**Keywords:** Educational Technologies, Adult Learning, Opinion.

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## 1. Introduction

Technological scenery which has developed in the digital age, has an important impact on demand of lifelong learning and problem-solving skills. When examining the correlation between adequate problem-solving skills and formal and informal learning in technologically rich environments, it is seen that the general level of problem-solving skills is higher among individuals attending formal or informal learning activities than individuals not attending. To sum up formal and informal learning activities performed by adults while applying skills in practice, it is possible to develop lifelong learning skills in the context of educational technologies by recognizing these activities undertaken by competent problem solvers (Nygren, Nissinen, Hämäläinen & De Wever, 2019). When evaluating informal education in general terms, it points out that formal education and informal education are complementary for each other and learning lasts lifelong in accordance with the principle of sustainability that is among the basic principles of the Turkish System of National Education (Karakutuk, 1990).

There are numerous studies on educational technologies in informal education in the literature (Greenfield, 2009; Fenichel & Schweingruber, 2010; Straub, 2009; Hung & Yuen, 2010; Dabbagh & Kitsantas, 2012; Chen & Bryer, 2012; Lai, Khaddage & Knezek, 2013). In a study which was conducted to make a diagnostic evaluation concerning the competence level of pedagogical personnel to use educational technologies in formal and informal educational environments and see whether or not it created opportunities for learning, an effort was made to develop a strategy for lifelong vocational development of instructors. It is seen that instructors strive to develop themselves in utilizing educational technologies in formal and informal education environments. In this respect, it is of prime importance to develop the structure and content of vocational development or postgraduate programs for instructors in education institutions or to evaluate the professional competence level of pedagogical personnel in utilizing educational technologies (Vovk, Sotska, Trynus & Muzyka, 2019).

On the other hand, the fact that informal education is not fully integrated at the national or system level might be associated with lack of study and evaluation data that supply evidence concerning the impact of informal education. This disconnection is probably a result of shareholders' reluctance to cooperate in mutual priorities such as activity research, knowledge sharing and knowledge creation. Another important matter is technical problems. Lack of specialized education for instructors and scarcity of contents and course materials or failure of educational technologies to transform them are among the most important problems of informal education, today (Newman, 2019). Thus, when examining the literature in general, it is seen that the studies have been mostly related with formal education. Also, the studies challenging the view that educational technologies were utilized seldomly in earlier years have tended to focus on individual devices. A study considered how the devices supported pedagogical application, instead of investigating how often the range of devices was used. The results support the view that implementers in earlier years accessed to a larger spectrum of technology and these technologies were utilized in a pedagogically more appropriate way than the ones reported formerly. Attitudes toward educational technologies are positive in general. Additionally, as students need access to technology, they are framed according to this pedagogical logic in daily life, which in turn develops technology learning (Jack & Higgins, 2019).

In a study, school leaders' applications supporting the innovative utilization of digital technologies for teaching and learning, as well as learning conditions developed with technology were examined on laptop computers in two schools for three years. The purpose of the study was to investigate, analyze and discuss these possibilities and difficulties at the end of the intervention, in terms of school leaders. In a recent study, school leaders have seen possibilities in sharing and collaboration methods and have determined that the methods create a useful environment for the use of digital technologies in education. Difficulties are rather technical problems. School leaders aim to find time to prioritize leadership for the use of digital technologies, by supporting teachers in their studies (Håkansson Lindqvist, 2019). Another study examined how technology has affected education in the areas of science,

technology, engineering and maths within the last ten years and focused especially on the utilization and integration of educational technologies. The key to the inclusion of technology in education is attitudes, perceptions and self-efficacies of teachers, faculty and administration. Four keys have been presented concerning how to effectively integrate science and educational technologies and certain recommendations have been made for the ways of associating them (Dickson, Fidalgo & Cairns, 2019).

In another study using technology acceptance model in order to examine the impact of individually adopted cultural values on teachers' intention of using technology; inadequacy of studies in developing countries and cultural prejudices in the technology acceptance literature were examined and the effect of individually adopted cultural values on technology acceptance was investigated. This is because technology acceptance was considered an individual concern. The results revealed that technology acceptance model was a valid framework for explaining technology acceptance of teachers. Perceived practicality, subjective norms, and attitudes toward utilization and culture were established as important determinants of behavioral intentions and it was seen that attitudes toward utilization had the greatest effect (Teo & Huang, 2019). As a matter of fact, technology was even more closed both physically and culturally in earlier years. In addition, it has not exactly been reflected in educational environments, yet. The general reason for utilizing technology is 'social' rather than 'pedagogical'. Technology is generally used, because implementers believe that their environment should reflect a larger world, rather than supporting a belief stating that technology affects teaching and learning (Jack, 2019).

On the other hand, scientists, who have investigated how individuals learn since the invention of computers, have used technology to reveal cognitive and affective learning mechanisms. As instructors, researchers and developers or contributors of technology that supports learning; we should consider scaling technological novelties in education and our prejudices against it, when developing strategies against educational innovations. It is important to state that the research area investigating the effectiveness of learning technologies in school environments is relatively new and thus, originates from our limited samples, including thousands of students and hundreds of instructors. Therefore, principles presented on behalf of educational technologies may not be appropriate for all populations or learning environments and should be taken into consideration in the context of individual possibilities and school environments (Uncapher, 2019). As the digital age expands opportunities for technology use in the classroom, teachers' barriers in utilizing technology may hinder intentional integration of technology. With the help of practices concerning technology at the service level and frequent vocational development opportunities, instructors can begin to change their faith in technology and improve equalitarian learning opportunities (Siefert, Kelly, Yeara & Oliveira, 2019). Thus, the following question was tried to be answered in the study: What are the views of Shareholders on Utilization of Educational Technologies in Informal Education Institutions?

## **2. Method**

### *2.1. Research design*

According to Karasar (2009), this study was a case study which was conducted using descriptive screening model, in which a case or subject is described separately. In order to do that description profoundly, the qualitative research technique was used in the study. The study was carried out in phenomenological design, which is among qualitative research designs (Turgut, 2009). Thus, interview technique was used in the study to collect data and for that purpose, a semi-structured interview form was prepared.

## 2.2. Sample Group

Sample group consisted of individuals working at and attending courses in a school, which provides informal education in Konyaalti district of Antalya province. In addition, convenience sampling which is among purposeful sampling methods was used in the study. The participants were coded as; administrators A1, A2, A, T1, T2, S1, CA1, CA2, CA3, CA4, CA5, according to the order of interviews (Kus, 2007; Mason J. 2002; Patton, 1990; Rubin & Rubin, 1995; Yildirim & Simsek, 2006).

## 2.3. Data Collection Tools

Interview questions were prepared on the basis of a literature review and were examined by a field expert. The questions were finalized based upon the feedback received from these interviews. There were ten interview questions. The semi-structured interview form included questions about the views of shareholders on utilization of educational technologies in informal education institutions. The participants who were considered for the interview were informed about the purpose of the study and those wanting to participate in the study were determined on voluntary basis. The researcher took notes synchronously with the interviews. The interviews lasted for approximately 30-50 minutes. They were conducted in offices in the course centers between May and June 2019.

## 2.4. Data Analysis

In the study, the qualitative data acquired from the interviews were analyzed using content analysis, which is composed of the stages of coding, finding themes, organizing the data according to codes and themes (Balci, 2004; Yildirim & Simsek, 2011). The interviews recorded were put in writing by the researchers in computer environment. Then, all the data acquired in the study were read many times and coded. While coding, various dimensions were determined in accordance with the purpose of the study and themes were determined for these dimensions. Another researcher recoded the interview texts to provide reliability of the analyses. In order for validity and reliability to provide objectivity in a good qualitative study (Morse et al., 2002), a consensus was considerably achieved between codings of the researcher and another expert to a large extent and it was concluded that the process of coding was performed in a reliable way. Also, reliability of the comparative agreement between codings was determined by two independent researchers by calculating the Cohen's Kappa consistency coefficient in the SPSS 21.00 packaged software.

**Table 1. Values Concerning the Cohen's Kappa Consistency Coefficient**

	<b>Value</b>	<b>Asymp. Std. Error(a)</b>	<b>Approx. T(b)</b>	<b>p</b>
Measure of Agreement N of Valid Cases	Kappa 0.940	0.037	106.312	0.000

p<0.001

According to Table 1, it was determined that the Cohen's Kappa consistency coefficient was significant at the level of .94. The Cohen's Kappa consistency coefficient of .81 - .1 is evaluated as an excellent agreement (Landis and Koch, 1977). As a consequence, when considering an excellent agreement between the two researchers in this study; it was believed that the codings were reliable.

### 3. Results

This section includes findings concerning the views of shareholders on utilization of educational technologies in informal education institutions and interpretations of these findings.

#### 3.1. Distribution of the Shareholders According to Their Demographic Characteristics

Table 2 shows distribution of the shareholders according to age, gender, marital status, educational background, duration of professional service, duration of administration, duty and staff condition and classroom variables:

Table 2: Distribution of the Shareholders According to Their Demographic Characteristics

Variable	Code	A1	A2	T	T2	S1	CA1	CA2	CA3	CA4	CA5	f	%
Age	22-42		√									1	30
	42-60			√	√	√						3	30
	60+	√					√	√	√	√	√	6	60
Gender	F			√	√	√	√	√			√	6	60
	M	√	√						√	√		4	40
Marital Status	S			√	√							2	40
	M	√	√			√	√	√	√	√	√	8	80
Educational Background	Primary Education							√		√	√	3	30
	High School						√		√			2	20
	Undergraduate and above	√	√	√	√	√						5	50
Duration of Professional Service	1-5											0	0
	6-10		√									1	10
	11-15											0	0
	16-20											0	0
	20+	√		√	√	√						4	40
Staff Condition	Staffed	√	√									2	20
	Secondment			√	√	√						3	30

As is seen in Table 2, majority of the participants were above 42 years of age. Their genders were equally distributed and most of them were married. Majority of the administrators and teachers working in courses had a seniority for 20 years and more and had bachelor's degree. Most of them were working with secondment, whereas, administrators were staffed. The teachers was a computerized accounting teacher, a computer teacher, and a science and technology teacher. The study was examined in two different stages as administrators and teachers in charge of courses and students attending courses, in groups.

The themes concerning the views of shareholders on utilization of educational technologies in informal education institutions are shown in Table 3 as follows:

In Table 3, concerning the difficulties caused by overtime; A1 stated, "I agree that computer courses are very useful, but they are never inspected and are too long. The inspecting administrator hasn't adequate knowledge about computer. There is no regular system yet. There is one person one day and there are five or ten people other days... This number is too few to develop an effective inspection system for the inspection. We don't want to close down these courses, either. We want everyone, even one person to benefit from them. But since we are unable to inspect rationally, we are unfortunately

never fully satisfied. Therefore, the private institutions, associations or universities with which we collaborate should control this work firmly”.

Table 3: The Views of Shareholders on Utilization of Educational technologies in Informal Education Institutions

Theme	A1	A2	T1	T2	S	f	%
Inspection Weakness	√	√	√	√	√	5	100
Contribution of Collaborators (Financing Problems)	√	√	√	√		4	80
Achievement of Trainings	√	√	√	√	√	5	100
Need for Auxiliary Staff	√		√		√	3	60
Decrease in Course Minimum Number	√				√	2	40
Uncertainty of Authority and Responsibilities	√	√			√	3	60
Problems with Secondment	√	√			√	3	60
Not Utilizing Educational technologies	√	√	√	√	√	5	100

The views of shareholders on utilization of educational technologies in informal education institutions were as follows:

Concerning the contribution of collaborators, A2 expressed her/his satisfaction as follows, “All institutions, associations, private schools or faculties with which we collaborate provide all kinds of technological support. There is no such support in any other region of Turkey. We are far beyond many schools in terms of equipments and educational technologies. Courses such as computer, computerized accounting and educational technologies course are really appreciated by everyone. I hope it always continues like this”. Concerning the achievement of trainings carried out within the scope of course, T2 stated, “Students are very satisfied. After all they want to spend a good time in an activity together. When there is no concern for grades and exams in education and the only purpose is to learn, good things will happen. They are willing to attend especially computer courses”. Concerning the need for auxiliary staff; T1 stated, “They assign someone for coordination. There is no way for that person to keep up with everything. To be honest, I prepare my course notebooks, papers, etc. myself instead of the officer. I don’t expect it from anyone. I just deliver everything to the course manager in charge. Because if I expect procedures such as formal letters to happen on their own, I will never be able to manage it. I write the letters and deliver them myself. Because the course attendees are so eager that I neither want to keep them waiting nor offend them. There is a nice attendance. There is no way of seeing such a willing student group in other courses”. Concerning the decrease in course minimum number, S1 stated, “As I mentioned earlier, the number of students is constantly changing. One day it is too much and the other day it is too few. But the continuity and success of these courses are of prime importance to us. Therefore, we do everything possible in order for these courses not to close down due to inadequate number of course attendees”. Concerning the problems with secondment, S stated, “It is hard to work in this course one month and in another course another month. It will be better for us to get assigned in one course permanently or for a certain period. It takes time to get used to a new group. Just when you get used to a place, they assign you to somewhere else. I think assignments should cover one year or at least six months, so that employees will be more comfortable. Because our courses are based on materials, such as computers, projections, instruments and they all have debit. We could use them more confidently if we were staffed. Secondment gives us fear and anxiety for damaging them”. Concerning the problems with benefitting from physical facilities, S also stated, “I need some special instruments for my trainings and I have to take them to the course areas I go to. In the simplest term, I need a mannequin for the first aid course. The mannequin in the institution is always damaged and is too big.

The course areas are too distant from each other. I can carry this mannequin everywhere in my car. Because first aid is an applied course. Or other medical materials. Unfortunately, they are not available in the institutions. I have to supply them all by myself. If a medical teacher is staffed in such institutions and courses, these physical equipments would also be available. Therefore, I think that some courses should keep especially medical trainers available. Here is another suggestion; if these instruments cannot be supplied, they should be simulated with technological instruments in all settings. Because our course is applied. Unless there are appropriate equipments or educational technologies, the trainings will unfortunately not be able to achieve their goal”.

Table 4 shows the themes concerning the views of course attendees on Utilization of Educational Technologies in Informal Education Institutions are demonstrated in as follows:

Table 4: The Views of Course Attendee

Theme	CA1	CA2	CA3	CA4	CA5	f	%
Satisfaction with free courses	√	√	√	√	√	5	100
Contribution of physical assistance	√	√			√	3	60
Utilizing educational technologies	√	√	√	√	√	5	100
Limited physical facilities		√			√	2	40
Satisfaction with collaborative activities		√	√	√	√	4	80
Necessity of courses aimed at needs	√	√		√		3	60

In Table 4, concerning the satisfaction with attending free courses; CA2 stated, “We couldn’t afford to go to courses and also it required to take a bus or a private car to go, because the course centers were distant. However, I am glad that the courses are near our home and free. They are really useful for us”. Concerning the belief stating that physical assistance is useful and partially meets needs; CA1 stated, “Municipalities or volunteers give tablets, computers, etc. as a present in courses, from time to time. They are very useful for us. Or when a friend needs something that I don’t use, I give it to her/him as a present or lend it”. Concerning the satisfaction with utilizing facilities in the course areas; CA4 stated, “I can even take a printout and have things photocopied. I ask about things that I don’t understand on the phone. These are very important and essential for people at our age”. Concerning the limitation of physical facilities of the course centers, CA3 stated, “The fact that some departments are unavailable creates a negative condition for us. For example, even the bathrooms are unavailable in some evenings. They should always be available; indeed, even the cafeteria can be opened to sell tea or coffee. I think this can increase the attendance in courses”. CA2 stated, “It is really nice to utilize the internet and the printer. However, not all the web sites are available due to security. There should not be any access limitation for adults”. Concerning the satisfaction of adults with doing collaborative activities, CA1 stated, “In the evenings, we used to watch TV at home. But now we run to the courses like kids. Sometimes we sit with friends in the garden after the course. We have a purpose now. When I don’t go to the course, I miss my friends or worry about them when they don’t show up. Friendship is nice at every age”. Concerning the opening of courses according to the needs of the elderly, CA5 stated, “The courses are always the same; reading-writing, computer, chess, foreign language, sign language, knitting, etc. Actually, it would be very useful for us if there were vocational courses and certificates were given at the end of trainings. By this way, we would have a new profession. There are people among us who are still able to work. Besides, we would earn money. Why not? They don’t want to open courses due to our inadequate number. The course places, forms and types should be revised by informal education

institutions, in accordance with our age. As the technology has advanced a lot, we can also get these courses at home. For example, e-learning areas can be established. Why not?”.

#### **4. Discussion**

Deploying innovative learning technologies in real-world environments like schools and houses; it will be possible to provide a unique viewpoint regarding how the student’s cognition has developed in the course of time and how we can use these data to design more effective learning technologies and environments. If we actually aim to develop researches with training and practice, the future of training can be developed with how we combine research conceptions with practical matters (Uncapher, 2019).

In this respect, one of the basic precautions for increasing general attendance of adults in Lifelong Learning is to remove the obstacles of attendance. Because access problems to informal education still continue in technical terms (Greenfield, 2009; Dib, 1988, Eshach, 2007). For example, the foundations of educational technologies were examined by investigating a series of development courses presented with e-learning methods and the following data were presented: i) characteristics of participants; ii) main factors for their attendance; and iii) evaluation of courses. The findings indicate that e-learning is a new reality to be examined at many levels and various factors are taken into consideration (Gouvias, Vitsilakis & Kostas, 2019). The categories to be critically considered when schools would design large-scale research studies using their technology were ordered as follows: logic of conducting real-world studies, ethical thoughts, design of technology, evaluations against interventions, student admission, support of parents-teachers-school leadership, timing issues, contextual effects, researcher’s effects and convenience of applications (Uncapher, 2019). In this study, majority of adult course attendees complained about being unable to attend courses due to their age. Providing e-learning environments and facilities would increase course attendance of especially adults.

#### **5. Conclusion**

Taking all these into consideration; it is very important and essential to revise trainings according to the characteristics of students and break standard education rules in institutions like informal education, which is relatively richer in terms of educational technologies than formal education and is financially supported. As the digital age expands opportunities for technology use in the classroom, teachers’ barriers in utilizing technology may hinder intentional integration of technology. With the help of practices concerning technology at the service level and frequent vocational development opportunities, instructors can begin to change their faith in technology and improve equalitarian learning opportunities (Siefert, Kelly, Yeara & Oliveira, 2019). Therefore, different educational technologies applications need to be developed for adult education. Thanks to educational technologies of late adults, participation in learning activities can be ensured and existing participation can be increased. Different understandings can be developed on how educational technologies can be integrated, especially in informal education and similar studies can be conducted.

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