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Equality of Educational Opportunity: The Role of Using Technology in Education

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Abstract
Equality of educational opportunity implies that educational services should be accessible to everyone respectful of their abilities and interests. Using technology in education has been considered to increase access to both knowledge and resources for students. This research was planned to find out the views of principals and teachers regarding the impact of technology on equality of educational opportunity. It was planned as a qualitative study and data was collected through individual interviews with semi-structured open-ended questions. The most prominent suggestions came out as eliminated cultural and economical besides regional and provincial discrepancies, improved physical conditions, and provision of equal rights and privileges for access to education. Furthermore, technology as a way of equal opportunity was thought to increase access to knowledge and resources, increase educational quality and efficiency, and provide flexibility to access knowledge through distance education.

Keywords: Equality, Educational Opportunity, Technology, Distance Education

Introduction
“All men are created equal” might be a dream of utopia nowadays. History has witnessed religious movements, social movements and revolutions that have been inspired by this idea. These efforts were committed to the idea that all people are expected to have equal human dignity (Reimers, 1999, p.1). Coleman (1967, p.6) states that equality of opportunity has meant several things, and was itself a special concept, in the United States: (1) Providing a free education up to a given level which constituted the principal entry point to the labor force. (2) Providing a common curriculum for all children, regardless of background. (3) Partly by design and partly because of low population density, providing that children from diverse backgrounds attend the
same school. (4) Providing equality within a given locality, since local taxes provided the source of support for schools.

In general, the concept of equality of opportunity is considered as the equality of being able to reach wide range of resources and being able to utilize them (Tezcan, 1997; Akbey, 2006). Brookover and Lezotte (1981) described the concept of equality as “access”, “participation”, and “result”. Campbell and Klein (1982) criticized different definitions of equality of education in the sense that they seem to focus only on one aspect of equality concept. They argue that the meaning of equality cannot be limited to having access to education, methods used in education or result of the education process. Equality of educational opportunity means beyond delivering educational services to the poorest. It means giving individuals the opportunity to develop their talents and intelligences at optimum level. Therefore, educational institutions have an instrumental role for equality of opportunity as they bring out individual interests and abilities (Genç & Eryaman, 2006).

Even if inequality is difficult to completely eliminate, the main problem relates to the final stage and level of degree of inequality (Tural, 2002). Similarly, Tan (1987) indicates that equality in delivering education to everyone does not necessarily ensure that outcomes or benefits gained are equalized. She continues her argument by saying that the concept of equality of educational opportunity evolved from an understanding of inputs towards outputs.

Recent scientific and technological developments bring forward the issue of social and personal changes and the need for restructuring education. These developments made the use of educational technology at schools inevitable (Alkan, 1997). Developments in computer technology have been reflected in school practices with added sophistication of hardware and software, better student-computer ratios, and additional experience and training of teachers in how to use this new technology in the classroom (Sutton, 1991, p.481). Computers have been used in schools to arrange teaching and learning activities according to the needs of kids; carrying out the educational services more effectively and efficiently and creating a contemporary environment of learning and teaching (Uşun, 2000). Healey and Stevens (2002, p.2) state that integration of information technology into the curriculum has promoted internet access and networked educational opportunities for students in small schools in rural areas of developed countries.

Educational technology is considered to enhance students’ ability to learn a subject fully through the help of instruments at school or at home as technological instruments give them the opportunity to repeat the materials for enriched learning experiences. This is especially evident in higher education where the writings of renowned scientists are collected in data bases and open to students’ use as a rich knowledge resource. In addition, students in different parts of the world are able to reach the same sources as their peers (Deniz, 2008; Isman, 2002; Eren, 2010).

Valdez (2004) believes that use of technology in education help increase educational opportunities and quality. There is no doubt that Internet has the potential to help equalize educational opportunity by making the information resources available to students in all schools more similar than has been the case before. However, prior research on computer use in schools suggests that patterns of technology access and use often mirror and reinforce existing inequalities rather than mitigate them. For example, affluent schools pervade their students with more computers on a per pupil basis than do poorer ones (Schofield &
Davidson, 1998, p.2). Bringing the Internet to schools in a way that enhances educational equity is likely to be a complex process. First, there is the issue of whether this educational input will be distributed across schools and classrooms in ways that exacerbate or mitigate existing inequalities. The association between access and advantage has usually been understood to reflect the differential tax base in poor and affluent communities (Schofield & Davidson, 1998, p.6).

Duguet (1989) suggests that education authorities in most industrialized countries encourage the use of new technologies to modernize their education systems. They also realize it as a lever for fundamental changes. However, there is always the risk of confusing modernization and computerization. Correa (1989) argues that while modernization implies deeper and wider changes in education, computers could only serve this purpose. Computers are merely tools and it is unreal to expect magical solution. A reasonable expectation might be that computerization is most effective when incorporated with modernization efforts (Avci et al., 1993).

Web-based training that uses Internet technologies appear to be an alternative or supporting student-centered system in several ways. One; it helps individuals whose non-formal or vocational educational needs cannot be met by traditional education systems. Second; it removes limitations of time and space, individual differences and geographical difficulties. Finally; it is independent of staff facility, transportation, food and shelter (Yeniad, 2006). Providing all of these is the distance education which, at the same time, offers solutions for inequality of opportunity; provides lifelong learning for those who demand it; and is based more on self-learning (Kaya, 2002; Yeniad, 2006).

Distance education practices could ensure that students living in small settlements are presented with the same opportunities to use their talent and potential to perform at the highest level as their peers in city centers or urban areas. Thus, arrangements will be made to materialize equality in education and self-actualization of individuals nationwide (Deniz, 2008). Distance education practices ensure global collaboration as well. People of different languages, religions, and race worldwide would get the chance to express opinions and develop problem-solving skills. This, in turn, creates an internet population and an identification of world citizenship (Gürol & Sevindik, 2001).

Ministry of National Education (MONE) in Turkey, like in many other countries, started several projects to distribute technological instruments equally and to use them effectively. Among these are “Compulsory Education Project”, “World Links Project”, “Innovator Teachers Project”, “Ministry of National Education Information and Communication Technology System (MEBBİS)”, e-school system, and FATİH project that have been implemented by the Ministry (MEB, 2012).

The researchers of the study haven’t come across a similar study in the literature connecting the equality of educational opportunity to the use of technology. This study aims to determine the views of both teachers and school principals about the impact of technology projects on equality of educational opportunity. The following questions sought answers for this purpose:

1. How do you think equality of educational opportunity can be provided?
2. How do you think using technology in education effects providing equality of opportunity?

3. How do you think educational technology effects equality of opportunity for “life-long learning” processes?

Method
Problem Statement: Equality of educational opportunity implies that educational services made accessible to everyone respectful of their abilities and interests. Technology in education accompanied by mass media has been used to support and complement instructional methods. This certain manner of using technology in education has been considered to increase access to both knowledge and resources for students. In some instances, such as distance education practices, it may even take the place of education system entirely. While Ministry of National Education in Turkey has been implementing various projects based on technology, existence of equal opportunity has been limited because of the geographic and socio-economic conditions.

Purpose of Study: This research was planned to find out the views of principals and teachers regarding the impact of technology on equality of educational opportunity.

Methods: A holistic multiple case study method was used in the study, a commonly used qualitative research method. This is a qualitative research with a phenomenological design which aims at illuminating the specific, identifying phenomena through how they are perceived by the individuals (Lester, 1999).

Participants: The research was conducted with totally 8 teachers and principals in four state schools in the city of Antalya, Turkey. One teacher and one principal from each school were purposefully chosen on the basis that they were all volunteered in the study. Since generalization is not the real concern of qualitative research (Johnson & Christensen, 2008), convenience sampling was used, a technique where subjects are selected because of their convenient accessibility and proximity to the researcher.

The interview questions were developed based on the literature during a seminar study by one of the researchers. Data was collected over an eight-week period during the fall semester of 2012-2013 academic year. Individual interviews with semi-structured open-ended questions lasted approximately half an hour and were conducted at participants’ work place so that they could feel comfortable to get dependable answers. Each interviewee were asked for permission and were informed that the prior to the interview. Voice records of interviews were transcribed in the word processor and reviewed by interviewees for accuracy. Both researchers analyzed each document separately to obtain themes and the codes and compared their analysis. Descriptive analysis by Nvivo 10 Program and analytic generalization were used to analyze the data. Frequencies and percentages were given for codes under each theme. Findings were reported without any interpretation. The data collection instrument, the codings, and the final report were all examined by an expert in the field of qualitative methodology.

This study was conducted in four schools: one primary school, one vocational school and two high schools. A total of eight participants enrolled in the study. One principal and one teacher from each school were deliberately chosen. Seven of the participants were male and one was female. They ranged in seniority from 20 to 32 years (M=24,75). They all hold a bachelor’s degree. Two principals and two teachers work in high schools. One principal and one teacher
work in primary school. One principal and one teacher work in vocational school. All teachers were male and ranged in seniority from 8 to 20 years (M=13). All four teachers had a bachelor’s degree with the exception of one teacher also holding a masters’ degree.

Table 1. Demographic Characteristics of Participants

<table>
<thead>
<tr>
<th>Code</th>
<th>Gender</th>
<th>Seniority (year)</th>
<th>Age</th>
<th>Branch</th>
<th>Degree Graduated</th>
<th>Type of school</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>Male</td>
<td>25</td>
<td>58</td>
<td>History</td>
<td>Bachelor’s</td>
<td>Vocational School</td>
</tr>
<tr>
<td>P2</td>
<td>Female</td>
<td>20</td>
<td>44</td>
<td>Geography</td>
<td>Bachelor’s</td>
<td>High School</td>
</tr>
<tr>
<td>P3</td>
<td>Male</td>
<td>22</td>
<td>59</td>
<td>Physics</td>
<td>Bachelor’s</td>
<td>High School</td>
</tr>
<tr>
<td>P4</td>
<td>Male</td>
<td>32</td>
<td>54</td>
<td>Geography</td>
<td>Bachelor’s</td>
<td>High School</td>
</tr>
<tr>
<td>T1</td>
<td>Male</td>
<td>10</td>
<td>32</td>
<td>Geography</td>
<td>Bachelor’s</td>
<td>Vocational School</td>
</tr>
<tr>
<td>T2</td>
<td>Male</td>
<td>14</td>
<td>40</td>
<td>Philosophy</td>
<td>Master</td>
<td>High School</td>
</tr>
<tr>
<td>T3</td>
<td>Male</td>
<td>20</td>
<td>43</td>
<td>Guidance Counselor</td>
<td>Bachelor’s</td>
<td>Primary School</td>
</tr>
<tr>
<td>T4</td>
<td>Male</td>
<td>8</td>
<td>32</td>
<td>History</td>
<td>Bachelor’s</td>
<td>High School</td>
</tr>
</tbody>
</table>
Findings
Changes Needed in Education System for Provision of Equality of Educational Opportunity

Answer categories for the first theme of “views to provide equality of educational opportunity” are summarized in Table 2.

<table>
<thead>
<tr>
<th>Codes</th>
<th>P1</th>
<th>P2</th>
<th>P3</th>
<th>P4</th>
<th>T1</th>
<th>T2</th>
<th>T3</th>
<th>T4</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eliminate cultural and economical discrepancies</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>8</td>
<td>100,00</td>
</tr>
<tr>
<td>Improve physical conditions</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>8</td>
<td>100,00</td>
</tr>
<tr>
<td>Raising the teacher standards and quality</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>8</td>
<td>100,00</td>
</tr>
<tr>
<td>Eliminate regional and provincial discrepancies</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>6</td>
<td>75,00</td>
</tr>
<tr>
<td>Eliminate inequalities resulting from physical, cognitional, emotional, and personal differences</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>6</td>
<td>75,00</td>
</tr>
<tr>
<td>Remove the examination system for selecting students for schools</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td>3</td>
<td>37,50</td>
</tr>
<tr>
<td>Provide equal rights and privileges to access education</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td>3</td>
<td>37,50</td>
</tr>
<tr>
<td>Avoid making frequent changes in education system</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>25,00</td>
</tr>
<tr>
<td>Improving the financial situation of teachers</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>25,00</td>
</tr>
<tr>
<td>Integrating technology into education</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>25,00</td>
</tr>
<tr>
<td>Making technology and internet accessible for students from home environment</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>25,00</td>
</tr>
<tr>
<td>Improving physical conditions for special education students</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>12,50</td>
</tr>
<tr>
<td>Increasing social activities</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>12,50</td>
</tr>
<tr>
<td>Instead of technology learning via nature and real life experiences</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>12,50</td>
</tr>
<tr>
<td>Improving technological infrastructure</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>12,50</td>
</tr>
</tbody>
</table>

Teachers and principals all agreed that elimination of cultural and economical discrepancies, improvement of physical conditions, and raising teacher standards and quality are the most critical areas of change to ensure equality in education. Some views are given below:

*People have different economic status and they tend to use whatever they have economically for their kids’ education. Assume two students with the same points from the university entrance exam: One with the better economic situation can get into a private college when the other with economic disadvantages cannot get into anywhere. Thus, economic conditions of a family may be a more determining cause*
than the child’s knowledge and success in some situations. This creates an inequality for the youth (P3).

Family, child, and school collaboration is important. However, if the family does not believe in the necessity of working with the school, then it is a trouble. This has to do with cultural differences, with the level of education... (P2).

Physical conditions certainly need to be arranged. Number of classrooms, number of teachers, and other educational spaces... these are the main issues of our education system that needs to be addressed and in need of change (T2).

Thinking that teachers who attended in-service training programs and updated their knowledge can be better educators... We could give teachers better education and increase our teacher quality. This, I believe, will help bring equality for education (T4).

Eliminating regional and provincial discrepancies and eliminating inequalities resulting from physical, cognitional, emotional, and personal differences had a rate of 75%. Few thoughts are given below:

Same technological environment should be arranged for disadvantaged regions as well. And disadvantaged regions could be in any part of Turkey, central Anatolia, North or southeast of Turkey. It could be either an urban area or a rural area. I mean we shouldn’t only focus on one region considered disadvantaged and invest for improvement. Inequalities among regions and provinces exist, therefore, equality will be evident if we overcome this situation (P2).

People were born with different needs. Some can learn by reading, some learn by listening, while others can learn by taking down notes, etc. We have to repeat a subject when it is not understood by some students. Doing this with the help of visual devices, technology has lot to offer regarding this. Projectors, overhead projectors, and smart boards can all help to visualize a learning material. In short, we have teach each child something (P4).

Providing equal rights and privileges to access education and removing the current examination system for student selection need immediate attention to provide equality were indicated by 37.5% of the participants.

The examination system for student selection itself creates inequality and it need to be removed. What could be done instead? Students can be observed during the compulsory education for their academic achievements and then commission of teachers in schools could discuss about students’ future (T3).

I think, education should be regarded as a right, everyone should be able and have equal facilities to access to educational services (T2).

“Ongoing changes in the education system should be avoided”; “financial situation of teachers should be improved”; “technology should be integrated into education”; and “technology and internet should be made accessible for students from home” were mentioned by 25% of the participants.
The education system is subject to frequent changes. Before getting any results, it changes again. These changes affect equality of opportunity. You raise your students according to a particular system. They are about take a major exam and they face another change right before the exam… The system shouldn’t undergo any changes before you see the results (P4).

It is rather difficult to ensure equality of opportunity in our education system in this country. However, I believe integration of technology in education can facilitate equality of opportunity (T4).

It is an advantage when students have computer and internet at home. This will increase the equality of opportunity since the child is able to see, touch, and practice (T1). Finally, 12.5% of the participants agreed on the following subjects: improving physical conditions for special education students, increasing social activities, promoting real-life learning rather than using technology, and improving the technological infrastructure.

There is no school today that children with both mental and physical disabilities can attend. This situation creates an inequality of opportunity. These students are entitled to use their educational rights (T3).

When income levels and social life opportunities are increased, equality of opportunity will be ensured especially in less developed regions (T4).

Using technology in education is fine. I, on the other hand, would rather be surrounded by nature for what I teach. I mean, when students are not trapped in a classroom during the learning process, equal opportunity will be assured (T1).

Because we had only one classroom with projection at our school and we had to take turns, teachers were not able to benefit from technology properly (T1).

**Effects of Using Technology in Education to Provide Equality of Opportunity**

Views of school principals and teachers regarding second theme of “the effects of technology use in education to provide equal opportunity” are summarized in Table 3.

<table>
<thead>
<tr>
<th>Codes</th>
<th>P1</th>
<th>P2</th>
<th>P3</th>
<th>P4</th>
<th>T1</th>
<th>T2</th>
<th>T3</th>
<th>T4</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessing to knowledge and resources</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>8</td>
<td>100,00</td>
</tr>
<tr>
<td>Increasing educational quality and efficiency</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>5</td>
<td>87,50</td>
</tr>
<tr>
<td>Valuing individual differences</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>6</td>
<td>75,00</td>
</tr>
<tr>
<td>Affecting educational costs</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>5</td>
<td>62,50</td>
</tr>
<tr>
<td>Increasing efficiency of educational activities</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>4</td>
<td>50,00</td>
</tr>
<tr>
<td>Eliminating discrepancies between state and private schools</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>12,50</td>
</tr>
<tr>
<td>Removing any shortcomings of teachers in the class</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>12,50</td>
</tr>
</tbody>
</table>

108
All participants believe that using technology facilitates the access to knowledge and resources. World has become an electronic place. It is now the e-world we live in. Today, children all over the world, even from a remote location, can share knowledge and correspond to each other (P2).

The source/the material comes to you. You’re not going to the source. So, there is no excuse for those wanting to learn. The young generation is very fortunate to get any information with just the touch of a button (P3).

Of the participants, 87.5% indicated that using technology in education provides quality and efficiency as a mean for equality.

I think, in terms of quality and productivity, we seem to have achieved more equality of opportunity compared to the past (T1).

I think a better quality of education is offered through technology. And it is very effective in attracting student attention. Besides, through technology students are more inclined to attend the learning process. This increases quality and efficiency of education (T4).

Also, 75% of the participants indicated that use of technology in education respects individual differences. The affect of technology on educational costs has been expressed in a rate of 62.5%. Examples of participants’ conflicting comments about this are as the following:

You could eliminate individual differences by using technology. It will be absolutely effective in a positive way when a child is able to use all of his/her five senses (P1; 2, 3).

It does in fact increase the educational costs. There is a cost associated with using technology in education and it is the State’s responsibility. In this case, government might have to cut back spending on other educational items. Then we face with inequality in education again. This will create an advantage especially for those who are economically better off, but will make economically poorer dependent on government money (T4; 2, 3).

Half of the participants agreed that technology increases efficiency of educational activities. Lastly, in this category, 12.5% of the participants commented that elimination of discrepancies between state and private schools and removal of any shortcomings of teachers in the class are other benefits of technology use in education in providing equal opportunity.

There will be differences between teachers using technology during the lectures and teachers who don’t in terms of effectiveness. The use of technology in education, in this sense, will increase the efficiency and equality of opportunity in education (P1).

Currently, the state schools created an opportunity for low-income kids who can’t attend private schools through a project called FATİH. The low-income group is in majority, so we have restored the opportunity for them to compete with the minority who are financially better off. We are simply saying to those kids “You are now given the same opportunities with others in life. Here, you have a chance to compete in the game.” (P3).
We need to increase teachers’ level of using technology by organizing technology courses for them. Thus, we will be providing a kind of equality of opportunity. By using technology, an inexperienced teacher can eliminate any shortages to a certain extent. This way, a teacher is able to increase the effectiveness and can command better in the classroom (T4).

Effects of Educational Technology on Equality of Opportunity for Life-Long Learning Processes

Views of school principals and teachers about the third theme of “effects of educational technology on equality of opportunity for ‘life-long learning’ processes” are summarized in Table 4.

Table 4.
Effects of educational technology on equality of opportunity for “life-long learning” processes (principals’ and teachers’ views)

<table>
<thead>
<tr>
<th>Codes</th>
<th>P1</th>
<th>P2</th>
<th>P3</th>
<th>P4</th>
<th>T1</th>
<th>T2</th>
<th>T3</th>
<th>T4</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time flexibility to access knowledge</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td>6</td>
<td>75,00</td>
</tr>
<tr>
<td>Provision of education independent of location</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5</td>
<td>62,50</td>
</tr>
<tr>
<td>Knowledge accessibility</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>√</td>
<td>√</td>
<td>3</td>
<td>37,50</td>
</tr>
<tr>
<td>Comparing distance-education and face-to-face education in terms of equal opportunity</td>
<td>√</td>
<td></td>
<td>√</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>37,50</td>
</tr>
<tr>
<td>Contribution to professional development</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>√</td>
<td>2</td>
<td>25,00</td>
</tr>
<tr>
<td>Interaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>12,50</td>
</tr>
</tbody>
</table>

As seen in Table 4, 75% of participants indicated that using educational technology in “life-long learning” processes provides time flexibility in knowledge accessibility. Provision of education that is independent of location was second in order with 62.5%. Some thoughts are given below:

People who did not have a chance to attend school or were detained from their educational rights can benefit from distance education even when they are advanced in years even when they are 50. That means equality of opportunity for them (P1).

All we had in the old days was a TV program (a school channel). If you don’t have time then you miss it. You have to be able to follow up lessons at any time and any way you want. Technology comes in at this point. Students should be able to retrieve a video recording and reach the required documents from a computer. For this, technology is indispensable (T4;).

You can sit at home and follow up a course from you laptop. Either you live in a small southeastern town or central Anatolian town. It doesn’t matter. So, you basically take the equality to them. Then, the rest is up to the individual to sit down and work...... In this sense the benefits of technology are indisputable (P3).
Accessing knowledge and comparing distance-education and face-to-face education in terms of equal opportunity had a rate of 37.50%.

I believe it has to do with removing pressure on society. It is a chaotic situation when no one is able to attend a college or high school. We need something to direct people to in order to take the pressure out of them (T2).

Finally, 25% of the participants indicated that technology contributes to professional development of people through life-long learning processes, while 12.5% believed interaction is another outcome of technology in life-long learning. Some views are presented below:

Recently, the Ministry of Education has been implementing the e-academy project. We all have been a part of the internet training within the framework of this project. We find the possibility to keep better track of the developments there, such as any changes in regulations and daily routines and operations. These types of projects should be arranged for teachers as well (P4).

I should say that the only drawback of using technology in lifelong learning processes is interaction. In this form of training, the teacher and students can’t have one-on-one interaction with each other. For students who want to attend classes, lectures in the form of video conferencing could be arranged. This way interaction might be provided (T4).

Discussion and Conclusions

In this study, the views of teachers and administrators have been explored regarding equality of opportunity in education on the following topics: the changes needed in education system for equality of opportunity, the use of technology in education to ensure equality, and the impact of using educational technologies on "lifelong learning" processes. In order to run content analysis, frequency and descriptive analysis methods were employed as discussed in qualitative research.

Teachers and school administrators realize the need for change in some areas. They all agree that elimination of cultural and economical discrepancies is critical and physical conditions should be improved. Aytun (2006) suggests that when computers and internet are not used in schools, the existing digital divide that triggers inequality for children with low socio-economic conditions will increase. Gaps exist between different regions and provinces that need immediate attention as well. Stern (2010), in the same way, acknowledges that access to and proficiency with information and communication technologies is not equally shared among populations within countries or between countries themselves. This case is evident in developing countries as they have problems in providing equality of opportunity in education due to the geographical and socio-economic conditions (Nizam, 2011; Tüzün, 2009). Individuals’ physical, mental and emotional differences were also pointed out by most of the educators that need to be addressed to provide equality. The most repeated issues emerged in this study regarding inequality in education have been summed up by Tural (2002). The author suggested that the most common areas of inequality are observed between men and women, between provinces and regions, between rural and urban areas, across social, economic and cultural conditions, and across individuals’ physical, mental, and emotional states.
Participants criticized the existing student selection exam and suggested that it be removed totally. Günay and Gur (2009) indicated that emphasis and importance is given to central entrance exams as opposed to school education and they give rise to a separate education sector. Similarly, Aktay (2006) stated that using GPA and coefficients does not justice to individual success and creates a new kind of inequality across social strata. Participants also expressed their strong feelings for education and educational technologies to be accessed with equal rights and privileges by everyone. Educators also consider that raising teacher standards and qualities is important. They believe improving financial situation of teachers, integrating technology into education, making technology and internet accessible for students from their home would definitely help increase equal opportunity.

School principals recommend that making frequent changes in education system should be avoided. A study by Aksu et al (2012) revealed that teachers and school administrators consider the frequent changes to be unfavorable. Improving physical conditions for special education students and increasing social activities for all students are also deemed important to increase equality. Physical, social and psychological environment for special education kids are said to be far from being sufficient in recent years in Turkey (Akçamete et al., 1998).

Participants also commented on how using technology influences equal opportunity. The themes from the conversations pointed that technology increases educational quality and efficiency in general, increases accesses to knowledge and resources, respects individual differences, and finally increases efficiency of educational activities. According to İşman (2002), the use of educational technologies in schools can ensure a certain degree of equality of opportunity in education as students are provided with learning and teaching environments that support individual needs. Deniz (2008) points to the importance of repetition in learning and goes to say that when courses are collected and stored in electronic data bases, students and student groups are able to repeat the course material as many times as they need at their convenience. Two conflicting views presented regarding the cost of education. Some believe the state would have to cut spending on other substantial items as the technology eventually increases costs. Others believe that technology would reduce the costs of printing and distribution of books which would in turn contribute to equality of opportunity. In a study by Emunginin (2007), computer-aided examinations were found to be more cost-effective than examinations with conventional methods. One school principal thinks technology would also facilitate the removal of disparity between private and public school students. One teacher believes use of technology in education could positively contribute to eliminate the deficiencies originating from teachers. This finding is supported by the view that use of educational technology increases effectiveness of teacher (Akkoyunlu, 1998).

Participants expressed their opinions about the effects of technology on life-long learning processes. The majority think that it provides time flexibility to access information in the same way as it makes people independent of a certain place. They also believe technology has a positive impact on professional development of people. Researchers have a favorable perspective regarding distance education. Some of the views expressed include; eliminating the geographical challenges, bringing educational services to the student environment, and convenient access to information (Nizam, 2011; Deniz, 2008; Gürol & Sevindik, 2001; Tüzün, 2009).
On the contrary, some teachers seem cautious about the extensive use of distance education practices because it limits the interaction of people. This finding is supported by Schrum (1999)’s view indicating that interaction is a significant problem of distance education. Also on this, a study by Soefijanto (2002) revealed that a group of students taking online training courses experienced less instructor-student interaction than those who were in actual classroom. When distance education and face to face education are compared with regards to equality of opportunity two different views have emerged. Some participants thought if distance education is used effectively and efficiently, it may create equality of opportunity for people. Although it is no substitute for formal, face-to-face education, some participants believe that distance education is the kind of activity to take the pressure out of society and it is an avenue to direct people for alternative educational opportunities. In their empirical research, Johnson, Aragon, Shaik and Palma-Rivas (2002) claim that while there are no differences in terms of learning outcomes in both types of face-to-face and distance education, students in face-to-face training have more positive perception regarding the instructor and nature of the entire course.

Wealth and power have been distributed unequally among people in all societies around the world. Education is the single most important asset of a country that has its share of inequality among people. Although inequality is inevitable, that should not prevent governments from taking responsibility to improve conditions and increase opportunities for culturally and economically disadvantaged children. As a result of this study, it can be recommended that physical conditions of schools should be improved to help increase equal educational opportunity.

The educational system in Turkey is subject to frequent changes. The system changes should be planned ahead, tested in small scale, and carried out after evaluation. No attempt should be made for a new change before results of previous applications were seen and evaluated.

Development of e-content applications by Ministry of Education is crucial since these applications are known to increase access to wide range of knowledge and resources for every segment of the country. It would also be safe to say that teachers are no less responsible in materializing the right and just conditions of educational activities for all children. This study’s findings, therefore, draw attention to the importance of continuous/in-service training programs provided by Ministry of Education to its staff through distance education. These programs would facilitate teachers to adequately use the tools of educational technology to create more equalized education. Private organizations and universities, in collaboration with the MONE, carry an important role in increasing the quality and quantity of these kinds of educational programs for distance education applications.

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References
Deniz, S. (2008). The attitudes of elementary school teachers about education with computer supported and the influence of computer on students success (Master Thesis), Yeditepe University Social, Institute of Sciences, İstanbul.

Gürol, M., Sevindik, T. (2001). Web Based Distance Learning Applies 7th Internet Conference in Turkey. İstanbul.


Kaya, Z. (2002). *Distance Education*. Ankara: Pegem A.


