

## INVESTIGATING THE OPINIONS OF PRIMARY AND HIGH SCHOOL TEACHERS REGARDING ONLINE IN-SERVICE EDUCATION

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**Abstract :** *The aim of this research is to investigate the views of elementary and high school teachers regarding Online In-Service Education (OISE). The sample of the research consists of 114 teachers in Gaziantep city centre. Data were collected from a questionnaire developed by the researchers. According to the results of the research; a number of teachers want to have OISE, and teachers' views regarding OISE are not changed by variables such as gender, teaching experience , and previously having in-service education. The views of high school teachers are more positive than primary school teachers in terms of having OISE. Teachers think that OISE will increase the teachers' technology skills and will be more useful than traditional in-service education. In addition, they think that OISE is a necessary tool needed for teachers' professional development.*

**Keywords:** *In-Service Education, Online Education, Online In-Service Education, Information Technology*

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### INTRODUCTION

Knowledge has been inaccessible because it has increased too much in 21st century information society. Knowledge becomes outdated quickly as it was once perceived as a certain and unchanging value in traditional educational approaches. The type of person required now is one who knows how to learn and keep up with developments and the causes of the shifts in education. Schools can nurture this type of person with only well-trained teachers. Therefore, first of all, teachers have to renew their knowledge and should be able to keep pace with changes in society (Kuran, 2002).

According to several studies, the most important key to improve the quality of education is the teacher (Fulla & Miles, 1992). Thus, the most important factor for the development of education depends on the enhancement of teachers' fields of knowledge and skills with different teaching techniques. In-service trainings are conducted in order to make teachers' professional development continuous.

Modern society offers opportunities in many fields because of information and communication technology developments, especially the spread of the Internet (Buchanan, 1995). Internet has introduced two new possibilities in in-service education of teachers: online-service training and web-based service training. The students and teachers must use this technology effectively to learn and live in this complex information and communication society (King, 2002). Knowledgeable and responsible 21<sup>st</sup> century citizens are able to, a) use information technology, b) seek information, to analyze and interpret c) be creative and capable of using the means of production effectively (UNESCO, 2008).

According to Koç & Bakır (2010), pre-service teachers are not being trained to use this technology effectively. In addition, teacher candidates do not feel they are proficient in using technology in their classrooms and need more technology training. Therefore, continuous in-service training must be provided in order to use technology in education.

According to the Ministry of Education regulations, the goal of in-service training is to train personnel with in-service training activities such as courses and seminars. in-service training is a kind of training given to workers defined by salary range and job description”(Kıncal, 2000). In-service training is a short-term education activity for teachers provided in the workplace to develop knowledge, skills, and new ideas related to changes in the field of education and the development of educational technologies.

In the study of Gonen and Kocakaya (2006), 75% of teachers stated that in-service training is needed. One of the main objectives of in-service training is to provide teachers with a range of innovations, developments, required knowledge, and skills. The effective use of information and communication technology in education is possible by teachers' applications of these technologies, because, the usage areas of these technologies spread down to the level of primary school.

With the development of new Information and Communication Technologies (ICT), online education is being used in developed and developing countries to bring wider opportunities to people in the form of flexible, open, and distance learning systems (Farrell, 1999; Perraton & Postshnik, 1997).

Online education is an innovative form of distance education, taken through the internet. Lifelong learning needs of knowledge-based society have led to a new concept of distance education as online education. According to the 2002 figures, 1.6 million American students have taken at least one course online (Shelton & Saltsman, 2005).

Online education is defined as an innovative form of distance education that delivers instruction to a remote audience, using computer networks as the main medium. The general purposes of online education are to: (a) increase access to education for individuals located throughout the world, (b) remove barriers of time and space, and (c) develop a cost-effective approach by providing interactive learning opportunities for adults (Harasim, Hiltz, Teles, & Turoff, 1995; Hiltz, 1994; Khan, 1997).

If the online teacher education programs are well-designed to create new opportunities in teacher education, the cost of teacher training activities can be reduced. Research and case studies show that online training via the Internet provides an opportunity to develop new learning experiences to learners by managing self-directed learning, and sharing information and ideas in a cooperative and collaborative manner (Harasim, et al., 1995; Hillman, 1999; Moller, 1998; Thompson & Chute, 1998; Trentin & Scimeca, 1999).

According to the study of Lu & Jeng (2006), online discussion platforms in online-service training verify teachers' information and provide the possibility of configuring the new information. In addition, the

study shows that teachers use online discussions in online education to confirm their knowledge rather than construct new knowledge. Another finding is that, teachers' participation in discussion forums, makes learning easy and helpful.

Online teacher training is seen to have several benefits: (a) teachers can access in-service training without leaving their classrooms; (b) teachers can improve their computer literacy; (c) teachers are able to interact with their trainers and other teachers online better; and (d) once a database of online courses has been developed, teachers can access courses that meet their individual needs (Jung, 2001 ).

The biggest obstacles in teachers' participation of in-service trainings are time and space barriers (Barkley, 2001). Online in-service training will remove time and space constraints and will provide more teachers with getting training at any time and any place. Increasing in web-based courses, the need for quality professional development and technological training of teachers, online in-service training courses can be seen as good applications (Signer, 2010).

Some institutions in many developed countries have begun to provide online in-service training such as, distance education and media training courses (Boone & Andersen, 1995).

The main purpose of this research is to obtain information regarding the opinions of primary and secondary school teachers towards in-service education and to obtain the answers to the following questions: 1. What are the opinions of teachers about online in-service training? 2. Do teachers' views about online in-service training vary according to gender? 3. Do teachers' views about online in-service training vary according to their major? 4. Do teachers' views about online in-service training vary according to their experience? 5. Do teachers' views about online in-service training vary according to having in-service training before or not?

## METHODOLOGY

### **Research Design, Settings, and Participants**

The methodology utilized in this study is Survey Research. Survey (Description) method tries to explain events, objects, assets, institutions, groups and describes variety of fields (Kaptan, 1998). The sample used in this study is the teachers who work in the city centre of Gaziantep during the 2009-2010 academic year. The sample consists of 114 teachers of 7 primary and secondary schools in the city centre of Gaziantep.

### **Instrument and Data Collection**

The data collection tool was developed by the researchers. When creating the survey, relevant literature was scanned, and opinions of teachers and experts were gathered. The survey was first tested on 30 teachers and new items were then developed. Two extra items were added after the preliminary results. Survey's Cronbach Alpha reliability coefficient was found 0.849 in the SPSS 17 program. The questionnaire is a Likert type (5 Pieces ratings) scale. The survey was then administered to 114 teachers from 7 primary and secondary schools. In the future, this study can be done in more schools and many teachers to ensure the reliability and validity of the results.

### Data Analysis

The frequency, arithmetic mean, standard deviation, t test, and Oneway ANOVA test was used to evaluate the data collected for the purposes of this research. SPSS 17.0 program was used to analyse the data. To detect the significance of statistics .05 level of significance was utilized.

## RESULTS

This section will describe the findings based on the data collected according to the sub-problems. With the findings it will be determined if the teachers views on OISE change with gender, seniority, and participation in previous ISE.

Data were collected by survey. For each question frequency, percentage, standard deviation, and arithmetic averages were calculated. Arithmetic averages were used as an indicator of adoption of each question. The difference value of the scale of five ( $5-1 = 4$ ) divided to value (5) and 0.80 ranges of the level of adoption has set limits. Accordingly, the arithmetic average between 1.00-1.80 which has a level of adoption in question has been interpreted as, "Definitely Disagree", 1.81-2.60 "Disagree", 2.61-3.40 "Somewhat agree", 3.41-4.20 "I agree", 4.21-5.00 "Definitely agree".

**Table 1.** T-Test Results by Gender

Gender	N	$\bar{X}$	SS	T	P
Female	52	3.5590	.59601	.311	.757
Male	62	3.5161	.83135	.320	.750

According to Table 1,  $P = 0.757 > 0.05$  and so there is no significant difference of opinions of teachers about OISE according to gender. Besides, because of  $\bar{X} = 3.5$ , it can be said that teachers support OISE.

**Table 2.** T-Test Results by graduation

Graduation	N	$\bar{X}$	SS	T	P
Primary School	28	3.1286	.66045	-3.566	.001
Secondary School	86	3.6682	.70627	-3.691	.001

According to Table 2.  $P = 0.001 > 0.05$ , there is a significance of opinions of teachers according to the graduation related to OISE. In addition it is seen that secondary school teachers have a more positive opinion of OISE than the primary school teachers.

**Table 3.** T-Test Results by getting ISE previously

ISE got	N	$\bar{X}$	SS	T	P
Yes	88	3.5962	.70946	1.640	.104
No	26	3.3308	.77780	1.559	.127

According to Table 1,  $P = 0.104 > 0.05$  and so there is no significant difference of opinions of teachers about OISE dependent on previous ISE participation.

**Table 4.** ANOVA results by Seniority

Seniority	N	$\bar{X}$	SD	SE	95% confidence Interval for mean	Min.	Max.
1-5 year	10	3.1267	.68957	.21806	2.6334-3.6200	1.93	3.87
6-10 year	32	3.7688	.76650	.13550	3.4924-4.0451	2.73	6.93
11-15 year	30	3.4511	.76428	.13954	3.1657-3.7365	2.00	5.00
16-later	42	3.5159	.64871	.10010	3.3137-3.7180	1.87	4.87
Total	114	3.5357	.73067	.06843	3.4001-3.6713	1.87	6.93

**Table 5.** ANOVA Test by Seniority

	Sum Of Square	df	Mean of Square	F	P
Between Groups	3.642	3	1.214	2.356	.076
Within Groups	56.686	110	.515		
Total	60.328	113			

According to the Table 4 and Table 5,  $P = 0.076 > 0.05$ , there is no statistically significant difference of teachers opinions about OISE according to experience. However the teachers who have 6 years experience have more positive look about OISE than the others as seen in Table 4.

**Table 6:** The Mean and Percentage of Test Items.

Online In-Service Education	Definitely Disagree		Disagree		Somewhat agree		I Agree		Definitely Agree		$\bar{X}$
	N	%	N	%	N	%	N	%	N	%	
1 increases the literacy of teachers.	22	19,3	16	14,0	19	16,7	36	31,6	21	18,4	3.1579
2. increases the frequency of using information technology of teachers	10	8,8	20	17,5	23	20,2	38	33,3	23	20,2	3.3860
3. increases the interact of teachers with each other	15	13,2	22	19,3	31	27,2	38	33,3	8	7,0	3.0175
4. will eliminate the time restriction of teachers' professional development	9	7,9	7	6,1	26	22,8	53	46,5	19	16,7	3.5789
5. ensure more teachers to get ISE	6	5,3	8	7,0	19	16,7	51	44,7	30	26,3	3.7982
6. reduces training costs.	7	6,1	16	14,0	13	11,4	44	38,6	34	29,8	3.7193
7. facilitate teachers to reach the latest techniques and methods	4	3,5	10	8,8	15	13,2	46	40,4	39	34,3	3.9298
8. creates a continuous and accessible environment to teachers	7	6,1	6	5,3	16	14,0	49	43,0	36	31,6	3.8860
9. will increase qualities of teachers	6	5,3	16	14,0	32	28,1	37	32,5	22	19,3	3.5351
10. will encourage teachers autonomous learning.	2	1,8	8	7,0	37	32,5	47	41,2	20	17,5	3.6579
11. will provide assessment of education given in a short time	4	3,5	10	8,8	21	18,4	55	48,2	24	21,1	3.7456
12. is a necessity	8	7,0	9	7,9	31	27,2	41	36,0	25	21,9	3.5789
13. more useful than traditional way	5	4,4	9	7,9	26	22,8	41	36,0	33	28,9	3.7719
Traditional In-Service Education											
14. responds teachers' educational needs	11	9,6	29	25,4	37	32,5	26	22,8	11	9,6	2.9737
15. increases teachers' skills of using technology	18	15,8	41	36,0	10	8,8	29	25,4	16	14,0	2.8596
TOTAL											3,50642

According to Table 6, teachers who are in favour of OISE think that OISE will provide a continually and accessible environment, encourage independent learning and enhances the qualifications of teachers. In addition, teachers who partly support the idea that OISE is a need think that OISE will reduce costs and will be more useful than the traditional in-service education. The teachers also had an opinion that traditional in-service education does not enhance teachers' technology skills and not respond to the needs of the teachers.

In addition, according to Table 6. 57.9% of teachers fully, 27.2% of teachers partly think that OISE is a need, and 14.9% of teachers do not think that OISE is a need.

According to table 6. the teachers' most supported item was "*Online In-Service Education facilitate teachers to reach the latest techniques and methods*" with a 74.7% rate. The second most supported item by teachers was "*Online In-Service Education creates a continuous and accessible environment to teachers*" with a 74.6% rate.

## DISCUSSION AND CONCLUSION

According to the results the arithmetic average of all tests is 3.50. This indicates that the majority of teachers want OISE applications. Teachers' views do not vary according to gender, experience, and receiving OISE previously. These results agree with the previous study of Gültekin and Çubukçu (2008). According to the Gultekin and Çubukçu (2008) study; teachers views about In-Service Training do not vary according to gender, teaching experience, and their receiving ISE previously, individually, institutionally and generally.

Secondary school teachers' views were more positive than primary school teachers. The reason for this might be that secondary school students are older than primary school students and secondary school teachers and their students use technology more in education than primary school teachers and students. From this point of view, it can be said that views of teachers become more positive about the level of technology as the level of education advances.

The most interesting result from the research is that the teachers with more than 6 years of experience are more positive about OISE than the teachers with 1-5 years experience. Normally, newly qualified teachers should be more positive than the older ones, because, according to the Dikbaş (2006) study "Investigation The Attitudes of Teachers Candidates About E-Learning" student teachers had strong attitudes about e-learning (online education). The reason for this may be because the newly qualified teachers have a lack of sufficient knowledge, experience, and opinion about ISE. Another conclusion of the study: the most positive result of OISE the teachers discerned is to create continuous education environment they can access any time (without limitation of time and space). This result is compatible with the Ateşkan (2008) study. According to the results of the Ateşkan (2008) study, teachers who have a positive view about OISE believe that they can receive online education without limitation of time and space. The main question of the research is whether the teachers want OISE and feel OISE is necessary. According to the findings, teachers support OISE and feels that OISE is a necessity.

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