Journal of Education and Practice
ISSN 2222-1735 (Paper) ISSN 2222-288X (Online)
Vol.5, No.10, 2014

The Determınatıon of the Effectıveness of The Mınıstry of Educatıon's Informatıon Technology Formator Teacher Programme: The Case of Ankara

Selami ERYILMAZ[1]
1.Assistant Prof., Gazi University, Institute of Educational Sciences, selamieryilmaz@gazi.edu.tr,+90 505 319 41 30

Melahat NİGAR[2]
2.Postgraduate, Gazi University, Institute of Educational Sciences, melahatnigar@gmail.com

Abstract

The aim of this study is to determine whether the Information technology formator teacher programme administered by the Ministry of Education has been implemented effectively or not.

The research has adopted a descriptive survey model, a survey consisting of 9 demographic, 52 likert type and 1 open-ended question which was sent via chain e-mail to 214 Information technology Formator Teachers employed in Ankara, the survey has been answered by 170 participants.

The evaluation statements of the trained teachers, showing no variation among participants in terms of gender, school type employed, length of service and specialization, demonstrated that the participants found the training programme; highly usefull, enabling the development of vocational knowledge and ability; insufficient in terms period of training and content; sufficient with regard to the number of appointed personel; sufficient due to the applications conducted; sufficient enabling the acquisition of satisfactory amount of knowledge from most of the training topics. The evaluation statements of teachers with 26-31 age range and a graduate level of education showed a more negative trend.

As a result the evidence founded in this research has showed that there is a need to; take the opinion of the participants in terms of the timing of training; extend the period of training; arrange, after training, developmental training, courses and seminars that will enable participants to develop themselves and share information.

Keywords: Information Technology Formator Teacher Programme, in-service training, Developments Unique to a Country, Instructors training, Information Technology

INTRODUCTION

The developments in information and communication technology is changing the world in a positive and rapid way. Due to this fact, the rapid change in technology, together with the vast amount of information that came with it, has led to changes in individuals and establishments. This fast change has enforced all countries in the world, societies, organizations and institutions to adjust to the new technological developments. Nevertheless, all organizations and institutions in general follow closely the developments in information and communication. The Educational Institutions makes an intensive amount of effort to enable the acquisition of information and ability necessary for individuals to contribute to the era and society they live in (Eryılmaz, 2011:2).

The Ministry of Education gives great importance to human resource management in order to provide; instructors with the sufficient amount of application and use of the new technology; students with the opportunity to benefit from this technology not depending on place and time, thus with an appropriate environment; the integration of education and training with technology and enabling specialized educational services (Aktürk, 2007:2).

Based on the fact that there is a need, to equip the teachers specialized in information technology in order for our educational system to follow the ever-changing and renewed technological developments thus the use of information technology tools effectively and its adaptation to education, this study seeks to determine the effectiveness of the ME (Ministry of Education) "Information Technology Formator Teacher Education Programme's (ITFEP)".

Information Technology, used by mankind to communicate in the technical, economic and social field, is the processing of information based on science in a rational and systematic way particularly by means of electronic machines (http://www.tdk.gov.tr/index.php ?option =com_ gts&arama=gts&guid= TDK.GTS. 4fa acb 38b45560.24983214 Erişim tarihi: 28.02.2012).

Information is defined as the methods necessary for the structure and features of knowledge and communication, the delivery of information, its organization, storage, evaluation thus information based on knowledge, technologies based on information, network, process and functional activity.

Information technology, is the technology that includes computers and all technologies which offers service to its users with Networks the accumulation of knowledge, storage, processing, information instrument and its delivery. Information technology is a concept used to define all information services connected through communication and computer systems(http://www.makaleler.com/teknoloji-makaleleri/bilisim-teknolojileri-nedir.htm Erişim tarihi: 29.02.2012).

According to the directive prepared by the Ministry of Education in 2008, Information Technology Formator Teacher is termed as the teachers in any class/branch field possesing Computer Formator Teacher or Information Technology Formator Teacher Certificate.

Information technology formator teachers are assigned by the Ministry of Education in order to enable; the use of the classrooms more effective, efficient, conscious and intensive; computer assisted technology to be used in educational activities at

maximmum effectiveness; the extensive use of computer assisted technology in schools; the guidance of teachers and students about this subject; the necessary training about information technology in school; the neighbouring community to benefit from classrooms except formal school hours; classrooms to consistently function (MEB, 2008a:1).

Information Technology Formator Training Programme

The effective use of technological instruments in educational environment is important to enable the transformation into information society. In addition to this teachers need to integrate these tools to their classes by using them effectively. The most commonly used tool is computers. In order for teachers employed in schools to use computers most effectively the Education Technology Directorate General resorted to the organization of in-service training that will educate Computer Formator Teachers at certain times.

The aim of organizing ITFEP Education Programme is to educate Information technology formator teachers and enable them: at least to have basic level of Computer Skills; to have the ability to prepare class material and activities according to syllabus and student characteristics which can be effectively implemented in class; to share prepared activity and class material with collegues; to guide other teacher working in the same place.

The aim of the Program: The general aim of the formation of "ITFEP Education Programme":

- The integration of Education-training to the developed Technologies in order to increase the productivity and efficiency of education,
- To enable the use of information technology items by teachers during the process of education in the demanded place and time,
- To provide the teachers with the necessary information and hardware for improving lesson materials,
- To provide the guidance of teachers successfully completing the program about topics regarding information technology in the institutions employed and environment they live in.

In the aim of the prepared general framework, specialty areas have been determined and the teachers that will be trained in these areas needs to have sufficient amount knowledge and ability. These areas include:

- The Duty of Information Technology Formator (Regulations, Career and Administration Steps, required knowledge, ability and behaviour)
- Basic Computer Knowledge (Matters needed to be considered using History, Hardware, Software)
- Operating Systems (Windows versions, Pardus, Linux)
- Word Processing Software (Microsoft Word, Libre Office Writter)
- Electronic Calculator Software (Microsoft Excel, Libro Office Calc)
- Database Software (Microsoft Access, Libre Office Base)
- Presentation Preparation Software (Microsoft PowerPoint, Libre Office İmpress)
- Picture/Photograph Processing Software (Fireworks, Photoshop)
- Graphic / Animation Preparation Software (Flash)
- Video/Voice Processing Software (Adobe Premiere, Movie Maker, Audacity)
- Desktop Publishing Software (Publisher)
- Web Page Preparation Software (Dreamweaver)
- Server Operating Systems (Windows Version etc.)
- Communication via intnet (Outlook, internet Explorer etc.)
- The Application of Information Technology in Lessons (Planning educational material)
- The Social and Ethic Subjects in Computer Use (ME circular and regulations)

According to the report a large number of school administrators and teachers have not benefited sufficiently from the formator teachers employed in schools. The reason for this is that the education recieved by teacher is outdated, the new technological developments have been insufficiently integrated into the education process thus unability to entirely fullfill guidance tasks. Due to the above mentioned reasons a revised and updated program has been developed with the addition of new education topics a new program has been made.

The Targeted group of the Programme: The targeted group of the prepared programme: The Ministry of Education's primary and secondary school teaching staff, the teachers who posess a certificate showing they have completed the in-service courses about computers or at least 75 hour computer courses approved by the Ministry of Education, the teachers who have completed internship, senior teachers with at the most 15 years of teaching experience, the teachers with at least undergraduate level diploma.

- The total hour of the programme's application is estimated as 180 hours. The information technology classrooms where lessons are held, is organized so that each of the 20 trainees and the appointed instructor has a computer and webcam. The following are the names of softwares that will be used in trainning; Operating Systems (Windows versions, Pardus, Linux), Word Processing Software (MS Word etc.), Electronic Calculator Software (M Excel etc.)
- Database Software (MS Access,etc),Presentation Preparation Software (MSPowerPoint etc),Picture/Photograph Processing Software (Fireworks, Photoshop etc.), Graphic / Animation Preparation Software (Flash etc.), Video/Voice Processing Software (Adobe Premiere, Movie Maker etc.),Desktop Publishing Software (MS Publisher etc.), Web Page

Preparation Software (Dreamweaver, Frontpage etc.), Server Operating Systems (Windows Version etc.), Communication via intnet (Outlook, internet Explorer etc.) (MEB, 2007:11).

The research done about the technological instruments has indicated that the use of these instruments in the educational environment by teachers has contributed to the education process possitively. A conclusion that could be reached from the research results is that there is a requirement to asist education with technical instruments. Due to this reason with this training programme it was aimed to provide the guidance of formator teachers to other teachers in terms of preparing educational material and its share with other colleagues by using these teachnological instruments. The information learnt with the usage of Information Technology Tools appeals to more than one sense organ, keeps the interest alive longer, enables permanent learning and makes learning more entertaining.

The strategies used for the individuals participating in the programme rests on structural learning understanding which facilititates the effectiveness of the learners. It includes activities that enables trainees to construct, learn and evaluate information.

During the implementation of the activities in the training programme opportunity was given to trainees to make research, ask questions, solve problems and participate in the decision making. The appointed instructors rather then telling trainees what to say, should provide them the opportunity to ask questions, keep interests alive and be of guidance (MEB, 2007:15).

Evaluation is a multi step sistematic process with the aim of determining the effectiveness of teaching and learning. According to the constructive learning approach, which takes into consideration individual difference and emphasizes on bring forth individual features by increasing variety in the educational methods and techniques as far as possible, an opportunity of multiple evaluation that expresses the attitude, knowledge and ability of learners in assesment and evaluation should be provided (MEB, 2007:16).

The aim of the research and its importance

The aim of this study is to determine whether the Information technology formator programme administered by the Ministry of Education has been implemented effectively or not. In accordance with the general aim of the research the following hypotheses has been developed.

H_1: The teachers evaluation statements of ITFEP training programme showed no variation among participants in terms of gender.

H_2: The teachers evaluation statements of ITFEP training programme showed variation among participants in terms of age.

H_3: The teachers evaluation statements of ITFEP training programme showed variation among participants in terms of education.

H_4: The teachers evaluation statements of ITFEP training programme showed no variation among participants in terms of school type employed.

H_5: The teachers evaluation statements of ITFEP training programme showed variation among participants in terms of length of service and specialization.

H_6: The teachers evaluation statements of ITFEP training programme showed variation among participants in terms branches.

Information technology formator teachers are assigned by the Ministry of Education in order to enable; the use of the classrooms more effective, efficient, conscious and intensive; computer assisted technology to be used in educational activities at maximmum effectiveness; the extensive use of computer assisted technology in schools; the guidance of teachers and students about this subject; the necessary training about information technology in school; the neighbouring community to benefit from classrooms except formal school hours; classrooms to consistently function (MEB, 2008a:1).

Due to the fact that the required trainning is very important for Information Technology Formator Teachers to follow technological developments, to use the consistenly changing and developing information technology tools, it is estimated that this research by assessing the effectiveness of the trainning programme will contribute to the to the preparation of the programme by the Ministry of Education.

Research Method

In this part information is given about the statistical methods and techniques deployed in the model of the research, the population and sample, data collection and collected data analysis.

Research Model

The descriptive survey model has been used to determine whether the Information technology formator teacher programme administered by the Ministry of Education has been implemented effectively or not. Scanning Models are research approaches aimed to describe a situation existing in the past or the present. It tries to define the subject matter of research topic, individual or object in their own conditions. It doesn't try to change or affect them in any way.

The most commonly used research model in educational research is descriptive model because the researchers survey the features (ability, preferance, behaviour etc)of individuals, groups or (sometimes) physical environments (such as school) (Büyüköztürk, Çakmak, Akgün, Karadeniz, Demirel, 2010, s.21). This study, is descriptive research performed in the scanning model. Descriptive researches, are generaly carried out in order to enlighten a situation, to make evaluations according to standards thus to find relations among events. The main aim of descriptive survey is to thoroughly define and explain the analysed situation (Çepni, 2007:34).

Population and Sample

The population of the research consists of among 572 Information technology Formator Teachers employed in Ankara, 214 teachers who participated in the Information Technology Formator Programme. Despite the researching all of the population, the survey has been answered by only by 170 participants.

Data Collection Technique

To determine whether the Information technology formator programme administered by the Ministry of Education has been implemented effectively or not, the first stage of this research consists of the evidence founded in the literature review and the theoretical part of the research about the data and basis of the Information Technology Teachers Training programme.

In order to collect evidence a survey has been prepared to be answered by Information technology formator teachers, the prepared questions were applied either asked face to face or when necessary communication tools were used.

The survey, a tool prepared to collect data, is formed by 3 parts. In the first part individual information and educational information, in the second part information about the education recieved, in the third part information about the teachers are given.

Data Collection Instruments

After the feedback answers to assesment tools of the applied area of survey a data basis has been formed in the computer. In data analysis, it has been benefitted from the relevant statistical packets.

In order to assess the credibility of the survey prepared for research, the evaluation statements about the ITFEP of the trained teachers in the survey form has been researched with the five point likert scale credibility and as an outcome of the analysis (cronbach alpha) 0.976 coefficient credibility was determined. The credibility coefficient being close to the value of 1shows that all the questions in the assesment measurement are consistent with each other and shows that they are homogenious in measuring the formation (Özdamar, 2002). In this respect the it has been decided that the collected data is appropriate for statistical.

Analysis of Data

The collected data in the research; in accordance with the specified aims, it has been analyzed and interpreted by benefiting from descriptive statistics and various statistical analysis (t Testi, one-way variance analysis, multiple comparison test).

EMPRICAL EVIDENCE AND COMMENTS

Descriptive Statistics

In this part, it has been benefitted from descriptive statistical models, absolute and relative frequency aiming to put forward the demographic features of teachers participating in the research and to evaluate before/after the teachers educational situation.

In Table 1 evidence regarding the teachers participating in the research is presented. Accordingly 61.2 %of the teachers are male and 38.8% are female teachers. When analysing the frequency of the distribution of teachers according to the age of teachers, it has been founded with a sample of 38.8%, the majority of teachers are at a 38 – 43 range.

Table 1. *The Distribution of Teachers According to their Demographic Features*

	Frequency(f_i)	**Percentage(%)**
Gender		
Female	66	38.8
Male	104	61.2
Age Range		
26 – 31	10	5.9
32 – 37	40	23.5
38 – 43	66	38.8
44 – 49	41	24.1
50 and over	13	7.6

Table 2. *The Distribution of Teachers According to their Vocational Situation*

	Frequency (f_i)	**Percentage (%)**
Graduation level		
Associate Degree	6	3.5
Undergraduate	133	78.2
Graduate	30	17.6
Doctorate	1	0.6
Professional Seniority		
5 years and below	8	4.7
6 – 10 years	14	8.2
11 – 15 years	56	32.9
16 – 20 years	57	33.5
21 – 25 years	19	11.2
26 years and over	16	9.4

Type of School Employed		
Primary School	82	48.2
General Secondary School	70	41.2
Vocational and Technical School	18	10.6
Branch		
School Teaching	35	20.6
Physical Sciences Group	34	20.0
Design and Technology	29	17.1
General Ability Group (Art, Music, P.E etc)	19	11.2
Training Courses Teaching	11	6.5
Foreign Language	10	5.9
Social Science Group	9	5.3
Maths	8	4.7
Literature	7	4.1
Philosophy Group	6	3.5
Religious Studies	2	1.2

In Table 2 the distribution of teachers according to vocational condition and features has been given.When the condition of teachers education level analyzed, it was determined that 78.2% represents undergraduate level. Also it can be observed that the teachers with 11 – 20 years professional seniority formed majority at 66.4%. It has been determined that 48.2% of the teachers are employed in primary school, 41.2% general secondary school and 10.6% in Vocational and Technical. The teachers respectively 20.6% ve 20.0% are included in school teaching and physical science group.

According to the frequency table presented in Table 3 it has been determined that, 91.2% of the teachers and 8.8% of administrators have participated voluntarily in the Information Technology Formator Training Programme. According to majority of teachers at 58.2%, the most appropriate time for organizing the education programme is June and September terms. In addition to this in terms of the teachers level of computer knowledge 7.1% think that it is very low, 62.9% medium and 29.4% advanced.

Table 3. *The Distribution of Teachers According to their Condition Attending the Information Technology Formator Teachers Training Programme, The Appropriate Time Period Arrangement, The Level of Computer Knowledge Before Attending The Programme*

	Frequency(f_i)	**Percentage(%)**
How did you part in the Information Technology Teacher Training Programme?		
Voluntarily	155	91.2
Demand of Administrator	15	8.8
What is the most appropriate time period that could be arranged for Information Technology Teacher Training?		
Class period in the weekends	4	2.4
Class period in the weekdays	29	17.1
June and September seminar period	99	58.2
Summer Holidays	38	22.4
What was your level of knowledge in computers before Information Technology Teacher Training Programme?		
none	1	0.6
Hardly any	12	7.1
Medium level	107	62.9
Advanced Level	50	29.4

Table 4. *The evaluation of Information Technology Teacher Training Programme*

	I disagree		***I agree***		***indecisive***		***I agree***		***I totaly Agree***		**average**	**deviation**
	fi	*%*	*fi*	*%*	*fi*	*%*	*fi*	*%*	f_i	**%**		
Information Technology Teacher Training Programme has been higly effective for the participants.	*4*	*2.4*	*6*	*3.5*	*7*	*4.1*	*70*	*41.2*	83	48.8	4.31	0.891
Information Technology Teacher Training Programme improved the participants vocational knowledge and ability.	*4*	*2.4*	*7*	*4.1*	*13*	*7.6*	*73*	*42.9*	73	42.9	4.20	0.921
Information Technology Teacher Training	*8*	*4.7*	*20*	*11.8*	*32*	*18.8*	*84*	*49.4*	26	15.3	3.59	1.035

Programme's technical infrastructure is exceptionally well prepared.												
The methods and techniques used in the training activity has been effective.	*6*	*3.5*	*9*	*5.3*	*24*	*14.1*	*95*	*55.9*	36	21.2	3.86	0.931
Information Technology Teacher Training Programme has been sufficient in terms of content.	*10*	*5.9*	*28*	*16.5*	*45*	*26.5*	*59*	*34.7*	28	16.5	3.39	1.122
The determined(180 hour) period for leaning is sufficient.	*22*	*12.9*	*50*	*29.4*	*35*	*20.6*	*41*	*24.1*	22	12.9	2.95	1.256
During the training activity the instructor personnel has used the time given efficiently and effectively.	*7*	*4.1*	*8*	*4.7*	*25*	*14.7*	*79*	*46.5*	51	30.0	3.94	1.004
The number of instructor personnel used during the application of training was sufficient.	*6*	*3.5*	*7*	*4.1*	*29*	*17.1*	*89*	*52.4*	39	22.9	3.87	0.933
The instructor personnel employed for the implementation of the program is from the relevant topic/lesson.	*8*	*4.7*	*15*	*8.8*	*36*	*21.2*	*75*	*44.1*	36	21.2	3.68	1.051
The instructors employed have sufficient amount of knowledge about training.	*4*	*2.4*	*9*	*5.3*	*21*	*12.4*	*86*	*50.6*	50	29.4	3.99	0.920
The instructor personnel employed for the implementation has used training instruments appropriately and effectively.	*3*	*1.8*	*6*	*3.5*	*22*	*12.9*	*91*	*53.5*	48	28.2	4.03	0.846
Training Employees were prepared for the lesson.	*2*	*1.2*	*6*	*3.5*	*15*	*8.8*	*90*	*52.9*	57	33.5	4.14	0.809
The environment of training has the appropriate technical facility.	*8*	*4.7*	*16*	*9.4*	*30*	*17.6*	*78*	*45.9*	38	22.4	3.72	1.062
Teaching activities are organized according to individual difference.	*19*	*11.2*	*41*	*24.1*	*62*	*36.5*	*33*	*19.4*	15	8.8	2.91	1.111
Sufficient amount of documents were given to participants during training.	*8*	*4.7*	*26*	*15.3*	*25*	*14.7*	*77*	*45.3*	34	20.0	3.61	1.111
Instructors facilitated participants access to the source of course materials.	*3*	*1.8*	*10*	*5.9*	*20*	*11.8*	*89*	*52.4*	48	28.2	3.99	0.894
The environment of training enables sufficient research opportunity.	*10*	*5.9*	*14*	*8.2*	*42*	*24.7*	*69*	*40.6*	35	20.6	3.62	1.083
The training programme includes teaching strategies that enables trainees effectiveness.	*5*	*2.9*	*13*	*7.6*	*41*	*24.1*	*77*	*45.3*	34	20.0	3.72	0.968
Training instructures enables participants to learn by practicing.	*6*	*3.5*	*5*	*2.9*	*12*	*7.1*	*97*	*57.1*	50	29.4	4.06	0.895
Training instructors can make sufficient amount of practice relative to training.	*7*	*4.1*	*20*	*11.8*	*42*	*24.7*	*66*	*38.8*	35	20.6	3.60	1.068
Training instructors associates new training with the prior.	*2*	*1.2*	*12*	*7.1*	*30*	*17.6*	*88*	*51.8*	38	22.4	3.87	0.881
During the training activity the instructor personnel's communication with the trainees was effective and sufficient.	*5*	*2.9*	*7*	*4.1*	*16*	*9.4*	*81*	*47.6*	61	35.9	4.09	0.937
The instructor personnel has benefited from the paticipants experience.	*4*	*2.4*	*7*	*4.1*	*28*	*16.5*	*84*	*49.4*	47	27.6	3.96	0.906
Instructor personnel has high teaching motivation, patience and qualities to motivate participants.	*5*	*2.9*	*10*	*5.9*	*19*	*11.2*	*88*	*51.8*	48	28.2	3.96	0.948
Training programme is organized at appropriate times.	*9*	*5.3*	*20*	*11.8*	*61*	*35.9*	*57*	*33.5*	23	13.5	3.38	1.032
Appropriate and sufficient techniques has been during assesment and evaluation.	*5*	*2.9*	*14*	*8.2*	*33*	*19.4*	*77*	*45.3*	41	24.1	3.79	0.996
Due to training programme I have fully comprehended the duties and responsibilities of the Information Technology Formator Teacher	*4*	*2.4*	*12*	*7.1*	*23*	*13.5*	*76*	*44.7*	55	32.4	3.98	0.979
Due to Training programme I have Basic Computer Knowledge.	*3*	*1.8*	*4*	*2.4*	*8*	*4.7*	*67*	*39.4*	88	51.8	4.37	0.827
I can without any trouble use Operating Systems	*5*	*2.9*	*4*	*2.4*	*12*	*7.1*	*68*	*40.0*	81	47.6	4.27	0.915

(Windows versions, Pardus, Linux) which I have recieved training.												
I can prepare documents with Word Processing Software (Word).	*4*	*2.4*	*2*	*1.2*	*2*	*1.2*	*50*	*29.4*	112	65.9	4.55	0.792
I can prepare documents with Electronic Calculator Software (Excel).	*4*	*2.4*	*4*	*2.4*	*10*	*5.9*	*60*	*35.3*	92	54.1	4.36	0.882
I can prepare database folders with Database Software.	*12*	*7.1*	*30*	*17.6*	*49*	*28.8*	*51*	*30.0*	28	16.5	3.31	1.153
I can prepare example presentation with Presentation Preparation Software.	*4*	*2.4*	*2*	*1.2*	*2*	*1.2*	*53*	*31.2*	109	64.1	4.54	0.793
I can organize picture or photograph folders with Picture/Photograph Processing Software (Photoshop, Fireworks).	*6*	*3.5*	*10*	*5.9*	*19*	*11.2*	*73*	*42.9*	62	36.5	4.03	1.017
I can prepare Graphic / Animation document with Graphic / Animation Preparation Software.	*7*	*4.1*	*20*	*11.8*	*50*	*29.4*	*66*	*38.8*	27	15.9	3.51	1.028
I can prepare video and voice documents with Video/Voice Processing Software (Adobe Premiere, Soundforge, Moviemaker, vb.) that can be released in the internet.	*6*	*3.5*	*9*	*5.3*	*31*	*18.2*	*72*	*42.4*	52	30.6	3.91	1.008
I can prepare documents with Desktop Publishing Software (Publisher, etc).	*5*	*2.9*	*13*	*7.6*	*22*	*12.9*	*73*	*42.9*	57	33.5	3.96	1.020
I can prepare a web page with Web Page Preparation Software **(**(Dreamweaver, Frontpage, etc.).	*12*	*7.1*	*10*	*5.9*	*36*	*21.2*	*64*	*37.6*	48	28.2	3.74	1.143
I can use Server Operating Systems (Windows 2003 Server, etc.).	*13*	*7.6*	*25*	*14.7*	*53*	*31.2*	*53*	*31.2*	26	15.3	3.32	1.133
I can Communication via intnet and use the inter İnternet effectively.	*3*	*1.8*	*3*	*1.8*	*2*	*1.2*	*45*	*26.5*	117	68.8	4.59	0.766
I can apply Information Technology in lessons.	*3*	*1.8*	*4*	*2.4*	*7*	*4.1*	*59*	*34.7*	97	57.1	4.43	0.827
I have knowledge about the Ministry of Education's The Social and Ethic Subjects in Computer Use circulars.	*2*	*1.2*	*10*	*5.9*	*11*	*6.5*	*67*	*39.4*	80	47.1	4.25	0.904
Due toEducation Programme I believe that I gained the necessary knowledge and ability I wanted. and Eğitim.	*5*	*2.9*	*5*	*2.9*	*32*	*18.8*	*78*	*45.9*	50	29.4	3.96	0.932
The knowledge I have gained from the Education Programme overlaps with the duty assigned to me in the institution I work.	*6*	*3.5*	*11*	*6.5*	*26*	*15.3*	*64*	*37.6*	63	37.1	3.98	1.052
Our opinions about the Programme has been taken after completion of the Education Activity.	*7*	*4.1*	*15*	*8.8*	*30*	*17.6*	*65*	*38.2*	53	31.2	3.84	1.092
I think that in order to develop Education Programme new learning areas can be included.	*3*	*1.8*	*7*	*4.1*	*20*	*11.8*	*66*	*38.8*	74	43.5	4.18	0.921
After the implementation of the Education activity, the training personnel has taken our opinion for self assesment.	*7*	*4.1*	*11*	*6.5*	*27*	*15.9*	*72*	*42.4*	53	31.2	3.90	1.047
Our opinion has been taken in order to evaluate the effectiveness of methods and techniques used in training activity.	*7*	*4.1*	*13*	*7.6*	*33*	*19.4*	*64*	*37.6*	53	31.2	3.84	1.079
Our opininion has been taken for the evaluation of the environment the training activity took place.	*7*	*4.1*	*17*	*10.0*	*28*	*16.5*	*67*	*39.4*	51	30.0	3.81	1.099
The information I have learned during training activity enabled me to develop myself.	*4*	*2.4*	*9*	*5.3*	*10*	*5.9*	*67*	*39.4*	80	47.1	4.24	0.950
The information I have learned enabled vocational development.	*3*	*1.8*	*10*	*5.9*	*15*	*8.8*	*63*	*37.1*	79	46.5	4.21	0.954
In order to follow developments and to update information, I think that the training activity needs to be continued.	*4*	*2.4*	*2*	*1.2*	*5*	*2.9*	*37*	*21.8*	122	71.8	4.59	0.810

In Table 4 The distribution of evaluation statements of teachers completing the Information Technology Teacher Training Programme has been presented. The teachers positive opinion,

- Information Technology Teacher Training Programme as highly effective for the participants.
- Information Technology Teacher Training Programme improved the participants vocational knowledge and ability.
- The instructor personnel employed for the implementation has used training instruments appropriately and effectively.
- Training instructures came to class well prepared.
- Training instructures enabled participants to learn by practicing.
- The instructor personnel employed for the implementation has used training instruments appropriately and effectively.
- I have acquired Basic Computer information due to the training programme.
- I can without any trouble use Operating Systems (Windows, Linux).
- I can prepare documents with Word Processing Software (Word).
- I can prepare documents with Electronic Calculator Software (Excel).
- I can prepare example presentations in the Presentation Preparation Software(PowerPoint).
- I can organize picture or photograph folders with Picture/Photograph Processing Software (Photoshop, Fireworks).
- I can Communication via intnet and use the inter İnternet effectively.
- I can apply Information Technology in lessons.
- I have knowledge about the Ministry of Education's The Social and Ethic Subjects in Computer Use circulars.
- I think that in order to develop Education Programme new learning areas can be included.
- The information I have learned during training activity enabled me to develop myself.
- The information I have learned enabled vocational development.
- In order to follow developments and to update information, I think that the training activity needs to be continued.

In the above mentioned statements it has been determined that the participants opinion showed a positive trend. However the teachers,

- Information Technology Teacher Training Programme has been sufficient in terms of content.
- The determined(180 hour) period for leaning in the programme is sufficient.
- Teaching activities are organized according to individual difference.
- Training programme is organized at appropriate times.
- I can prepare database folders with Database Software(Access).
- I can use Server Operating Systems (Windows 2003 Server, etc.). a more negative opinion statements has been determined.

Test of Hypothesis and Its evaluation

H_1: The teachers evaluation statements of ITFEP training programme showed no variation among participants in terms of gender.

T test has been used aiming to determine whether the teachers evaluation statements of ITFEP training programme showed variation in terms of gender. In the t test independent two examples average difference is anlaysed whereas in the Levene test the two sample variation results showed homogeneity. In accordance with this situation evidence resulting from analysis has been given in Table 5. It has been determined that the teachers evaluation statements of ITFEP training programme showed no variation among participants in terms of gender [$p > 0.05$].

Table 5. *Distribution of The Teachers Evaluation Statements of ITFEP Training Programme According to Gender*

	Group Statistics			Test Statistics		
	n	**Average**	**Deviation**	**t**	**sd**	**Level of importance (p)**
Female	66	3.927	0.630	0.085	168	0.932
Male	104	3.918	0.681			

H_2: The teachers evaluation statements of ITFEP training programme showed variation among participants in terms of age.

In order to determine whether the teachers evaluation statements of ITFEP training programme showed variation according to age one way variance has been used.

In this research, it is analysed whether each groups normal distribution is randomly chosen or not, one of the preconditions of variation analysis, thus in this regard it was decided that the data is appropriate for one-way variation analysis. The evidence found as a result of analysis is given in Table 6. As a result the teachers evaluation statements of ITFEP training programme showed variation among participants in terms of age [$p < 0.05$].

Table 6. *Distribution of The Teachers Evaluation Statements of ITFEP Training Programme According to Age*

		Group Statistics			Test Statistics		
		n	**Average**	**Deviation**	**F**	**sd_1- sd_2**	**Level of importance(p)**
Age Group	26 – 31	10	3.38	0.892	3.831	3 - 166	0.011
	32 – 37	40	4.11	0.497			
	38 – 43	66	3.85	0.712			

	44 and over	54	3.96	0.599	

In order to find which level average is different from the others a multiple comparison test (post-hoc tests) has been used. In accordance with this, it was seen appropriate to use the Tukey HSD Test which is used to compare the equal variation of average of independen group.

Table 7. *Distribution of The Teachers Evaluation Statements of ITFEP Training Programme According to Age With Regard to Multiple Comparison Test*

Tukey HSD				
Level	**Level**	**Average Diff**	**Std. Error**	**p**
26 – 31	32 – 37	-0.729	0.228	0.009
	38 – 43	-0.468	0.218	0.145
	44 and over	-0.578	0.222	0.049
32 – 37	26 – 31	0.729	0.228	0.009
	38 – 43	0.261	0.129	0.183
	44 and over	0.151	0.134	0.674
38 – 43	26 – 31	0.468	0.218	0.145
	32 – 37	-0.261	0.129	0.183
	44 and over	-0.110	0.118	0.788
44 and over	26 – 31	0.578	0.222	0.049
	32 – 37	-0.151	0.134	0.674
	38 – 43	0.111	0.118	0.788

The applied multiple comparison test has been given in Table 7. A result reached according to this is that the individuals with 26 – 31 age range held a different opinion from other age groups. The teachers evaluation statements of ITFEP training programme showed a negative trend in the 26 – 31.

H_3: The teachers evaluation statements of ITFEP training programme showed variation among participants in terms of education.

In order to determine whether the teachers evaluation statements of ITFEP training programme showed variation among participants in terms of education a t test has been applied. In the t test independent two examples average difference is been analysed whereas in the Levene test the two sample variation results showed homogeneity. In accordance with this the situations evidence resulting from analysis has been given in Table 8. It has been determined that the teachers evaluation statements of ITFEP training programme showed variation among participants in terms of education [$p < 0.05$]. The teachers evaluation statements of ITFEP training programme showed negative trend among participants with a graduate level of education.

Table 8.*Distribution of The Teachers Evaluation Statements of ITFEP Training Programme According to Level of Education*

	Group Statistics			**Test Statisitics**		
	n	**Average**	**Deviation**	**t**	**sd**	**Level of importance(p)**
Graduate	133	3.99	0.642	1.973	162	0.049
Undergraduate	31	3.73	0,701			

H_4: The teachers evaluation statements of ITFEP training programme showed no variation among participants in terms of school type employed.

In order to determine whether the teachers evaluation statements of ITFEP training programme showed variation among participants in terms of school type employed one-way variation analysis has been used. In this research, it is analysed whether each groups normal distribution is randomly chosen or not, one of the preconditions of variation analysis, thus in this regard it was decided that the data is appropriate for one-way variation analysis. The evidence found as a result of analysis is given in Table 9. As a result the teachers evaluation statements of ITFEP training programme showed variation among participants in terms of no variation among participants in terms of school type [$p > 0.05$].

Tablo 9. *Distribution of The Teachers Evaluation Statements of ITFEP Training Programme According to type of School Employed*

		Group Statistics			**Test Statistics**		
		n	**Average**	**Deviant**	**F**	**sd_1- sd_2**	**Level of importance(p)**
Group	Primary School	82	4.02	0.586	2.133	2 - 167	0.122
	School Teaching	70	3.80	0.759			
	Vocational and Technical Secondary School	18	3.92	0.493			

H5:The teachers evaluation statements of ITFEP training programme showed variation among participants in terms of school type employed.

Table 10. *The situation of The Teachers Evaluation Statements of ITFEP Training Programme According to length of Service and Specialization*

		Group Statistics			Test Statistics		
		n	**Average**	**Deviant**	**F**	**sd_1- sd_2**	**Level of importance(p)**
Group	10 yıl ve altı	22	3.76	0.790	2.839	2 - 167	0.061
	11 – 20 yıl	113	4.00	0.585			
	21 yıl ve üstü	35	3.75	0.760			

In order to determine whether the teachers evaluation statements of ITFEP training programme showed showed variation among participants in terms of length of service and specialization one-way variation analysis has been applied. In this research, it is analysed whether each groups normal distribution is randomly chosen or not, one of the preconditions of variation analysis, thus decided that the data is appropriate for one-way variation analysis. The evidence found as a result of analysis is given in Table 10. The teachers evaluation statements of ITFEP training programme showed variation among participants in terms of of length of service and specialization [p > 0.05].

H_6: The teachers evaluation statements of ITFEP training programme showed variation among participants in terms branches.

In order to determine whether the teachers evaluation statements of ITFEP training programme showed showed variation among participants in terms of branches one-way variation analysis has been applied. In this research, it is analysed whether each groups normal distribution is randomly chosen or not, one of the preconditions of variation analysis, thus decided that the data is appropriate for one-way variation analysis. The evidence found as a result of analysis is given in Table 11. The teachers evaluation statements of ITFEP training programme showed no variation among participants in terms of branches [p > 0.05].

Table 11. *The situation of The Teachers Evaluation Statements of ITFEP Training Programme According to Branches*

		Group Statistics			Test Statistics		
		n	**Average**	**Deviation**	**F**	**sd_1- sd_2**	**İmportance(p)**
Group	School Teaching	35	3.97	0.782	0.931	4 - 165	0.448
	Mathematics – Physical Sciences Group	42	3.78	0.641			
	Social Science Group	34	3.85	0.776			
	General Ability Group	19	3.94	0.431			
	Vocational and Technical Group	40	4.04	0.532			

Teacher's View and Evaluations

The views expressed on section III of this survey ''The other thoughts you want to write about the survey topic'' which is applied to Information Technologies Formator Teachers are as follows:

- More emphasis could be placed on hardware topics, Wordpress, Joomla etc. Web designing.
- The cources should be adjusted according to levels of teachers, if necessary an exam should be organized for the self educated teachers. If it is possible, a questionnaire should be made to assign the location and date of cources. (seminars)
- Firstly the participants should be selected from those who are concerned with this program in order to make Formator education courses more useful. To overcome infrastructural deficiencies in the places the cources are held will be effective in fully performing educational process.
- 180 hours duration is not sufficient. Topics are very comprehensive, the course was intensive and very amusing. Instructors were very patient and understanding. Duration and applications should be extended.
- The courses and seminars are necessery during the year in order to improve ourselves and to share savings with other friends. Instructors should be selected from those who can talk affectively, experienced in the field, open to the share of knowledge and taking lessons seriously. Instuctors should be evaluated in personally not generally. Although there are some instructors who are very good at their work, some instructors do not even want to attend their classes.
- The course was very fruitful and instructive. It helped us to improve computer usage and our own field. It is necessary to consistently arrange these kind of seminars.
- In-. Service developmental training for formators should take place more oftenly.
- To update our Formator education knowledge, in order to be informed about current softwares and developments, in-service training even if it is not held face to face should be given to us with other methods.
- I think Information Technologies Formator Teachers should be invited to training twice a year, the first one at the beginning of the term, the second one is at the end of the term. Some courses should be made even during the semester for volunteers who want to freshen their knowledge. Because of administrative works, we are necessarily far away from the knowledge we need to know.
- I would like to attend training which includes advanced techniques about preparing course content.

- I think opportunity should be given to Information Technologies Formator Teachers to attend in-service training about topics which they are weak.

.Course content has some deficiencies about hardware topics, this lack is preventing us to solve the technical problems. More content about hardware could be added to this course.

- Because the course date was not planned well, it was not helpful to us. After we were assigned to school administration, we tried to do something about it on our own and we still keep trying.
- Attending to course activity should not be limited to a quota. All demandants should be able to attend activities. Announcement of course activity should be done effectively. Activities should be arranged according to the needs and requests which are determined by filling out Needs and requests for activities form.
- A survey shoud be made for determining work conditions and satisfaction of information formators.
- The course is done without considering personal differences. It is very abrasive and sad to solve the problems by yourself with weak knowledge.
- Contents of some programs particularly desktop publishing, dreamweaver, 3Dmax, Flash, Autocad, Soundforge and Premiere should be extended and if it is necessery duration of course should extend from 180 h to 240 h.
- Classes in which courses are carried out should be more equipped.
- The teachers whose branches are not IT are not taken into in-service trainings prepared by Ministry of Education. I think that this procedure is not useful. I also think that the course programme should be divided into subject headings to provide continuity of the programme.
- The counseling teachers whose major is not IT basic information should be taught and enhanced about technical words like operating system, software, hardware.

Applications related to lessons are performed. But it is not sufficient. More applications should be done about topics (web, photoshop) which is not understood well or is needed more at school. The lecturing in courses should be recorded and broadcasted without any change. The records broadcasting now is at a very high level. The forgotten or lacking topics should be left to be compensated later. Because most of the formator teachers participating in the programme just recieved most of the cources. They do not have sufficient amount of knowledge.

- We need to take more advanced courses.
- After we took“the very fast and and compressed education” , developing courses must be definitely be held. The courses which helps us improve ourselves should be opened.
- I believe that the course teachers should be more Professionals.
- After the program, when the formator teachers apply to in-service training arranged by the Minister of Education to improve their development regarding to information, if there is no sufficient request (20) for the course or if the course does not follow the school’s process of approval, these courses do not take place. Thus the teachers are unable to become more qualified. Because of these reasons, in-service training should be more sensitively followed.
- When the trainees are assigned at schools, they fullfill the tasks by themselves, they can not get the support about technical problems. Due to these reasons, higher level courses should be immedietly organized..
- Some of trainers were not qualified and interested about topics. These issues should be resolved.
- In-service training should be continue by comprising new technologich developments without considering individual preference.
- Because the level of computer using groups differs from each other, trainers and trainees have some problems about comprehending the topics. Instead of Word, Excel, Powerpoint are already used by most of the teachers Instead of Word, Excel, Powerpoint which are already used by most of the teachers focus should be placed on softwares in different fields. In other words, before the course began, at least the qualification levels of teachers could be measured to determine the participants.
- Lecturing time of topics in education activities could be longer. Hardware equipments should be provided in order to carry out more applications in server training. Because the content of documents requested for IT classes is the same but listed in different titles, I think that the content should be simplified. I also think that we need to have topics which are different from school topics and the number of developmental courses should be increased. I find it appropriate that these courses should not be mailed to us from in-service module but from Egitek.
- I think that IT Counceling Teachers should occasionally take courses about new developments (Project Fatih) and topics which teachers are weak on.
- After IT Counceling Teachers receive certificate, they should not be left to the school headmasters decision in order to develop themselves they should be able to be taken to courses and attend courses individually.

Results and Suggestions

Results Regarding Descriptive Survey

1. When the findings related to demographic features of teachers who participated in the survey has been analysed, it has been estimated that the majority of the participants gender was male at 61,2 % and 38 % of participants samples were 38-43 age range.

2. When the distribution of teachers participated to survey analysed according to vocational conditions, it has been seen that most of the participants were undergraduate, however there were participants who were Information Technology Formator Teacher with a graduate, Phd. and associate degree (3,5 %).
3. 66,4 % of the teachers who participated in the survey had 11-20 years of professional seniority.
4. It has been determined that most of the teachers were employed in primary and secondary school. The number of teachers employed in the vocational and technical education is less than those employed in primary and secondary school. It has been det thatrmined that most of the teachers worked at primary and secondary schools. The number of teachers worked at vocational and technical secondary schools was less than those who worked at primary and secondary schools. .
5. When the branches of Information Technologies Formator Teachers are observed, it has been determined that most of the teachers are included in the Primary School Teacher, Physical Science Teacher, Technology and Design and General Ability Group.
6. It has been seen that most of the teachers participating in the survey (91,2) volunteered to attend the Information Technologies Formator Teacher Education Program.
7. The most suitable time for Information Technologies Formator Teacher Education Program preferred by the majority of participants were the June and September semesters.
8. It has been also seen that, before The Information Technologies Formator Teacher Education Program began, the level of computer use of the teachers participating in the survey had been mostly medium and pursued by the advanced level of computer usage. Non-computer users and barely users had been present.
9. When the evidence in the distribution of evaluation statements of teachers completing the Information Technology Teacher Training Programme is analysed it was found that;
   - Information Technology Teacher Training Programme has been higly effective for the participants.
   - Information Technology Teacher Training Programme improved the participants vocational knowledge and ability.
   - The training programs technical infrastructure was extremely well prepared
   - The methods and techniques used in the programme was effective in training
   - The training programmes content was insufficient
   - The determined(180 hour) period for leaning in the programme was insufficient
   - The instructor personnel employed for the implementation has used training time efficient and effectively.
   - The number of instructures employed for the effective implementation of programme was sufficient.
   - Training instructures employed for the effective implementation of the programme came from the relevant subject/course field.
   - The employed instructures are sufficient with regard to learning
   - The instructor personnel employed for the implementation has used training instruments appropriately and effectively.
   - Training Employees were prepared for the lesson.
   - The environment of training has the appropriate technical facility.
   - Teaching activities are organized according to individual difference.
   - Sufficient amount of documents were given to participants during training.
   - Instructors facilitated participants access to the source of course materials.
   - The environment of training enables sufficient research opportunity.
   - The training programme includes teaching strategies that enables trainees effectiveness
   - Training instructures enables participants to learn by practicing
     - Training instructures enables participants to learn by practicing.
     - Training instructors can make sufficient amount of practice relative to training.
     - Training instructors associates new training with the prior.
     - During the training activity the instructor personnel's communication with the trainees was effective and sufficient.
     - The instructor personnel has benefited from the participants experience.
     - Instructor personnel has high teaching motivation, patience and qualities to motivate participants.
   - The training programme was organized at inappropriate times
   - Appropriate and sufficient methods and techniques have been used for assesment and measurements
   - Due to training programme tranees have fully comprehended the duties and responsibilities of the Information Technology Formator Teacher
     - Due to Training programme they have Basic Computer Knowledge.
     - They can without any trouble use Operating Systems.
   - Trainees have acquired Basic Computer information due to the training programme.
   - Trainees can without any trouble use Operating Systems.
   - Trainees can prepare documents with Word Processing Software.
   - Trainees cannot prepare documents with Electronic Calculator Software.
   - Trainees can prepare example presentations in the Presentation Preparation Software.
   - They can organize picture or photograph folders with Picture/Photograph Processing Software.
     - Trainees can prepare Graphic / Animation document with Graphic / Animation Preparation Software.

- Trainees can prepare video and voice documents with Video/Voice Processing Software that can be released in the internet.
- They can prepare documents with Desktop Publishing Software.
- They can prepare a web page with Web Page Preparation Software.
- They cannot use Server Operating Systems.
- They can communicate via internet and use the inter İnternet effectively.

- They can apply Information Technology in lessons.
- They have knowledge about the Ministry of Education's The Social and Ethic Subjects in Computer Use circulars.
  - Due toEducation Programme I believe that I gained the necessary knowledge and ability I wanted. and Eğitim.
  - The knowledge they have gained from the Education Programme overlaps with the duty assigned to me in the institution they work.
  - Their opinions about the Programme has been taken after completion of the Education Activity.
  - After the implementation of the Education activity, the training personnel has taken our opinion for self assesment.
  - Their opinion has been taken in order to evaluate the effectiveness of methods and techniques used in training activity.
  - Their opininion has been taken for the evaluation of the environment the training activity took place.
  - The information they have learned during training activity enabled them to develop themselves.
  - The information they have learned enabled vocational development.
  - In order to follow developments and to update information, they think that the training activity needs to be continued.
- I think that in order to develop Education Programme new learning areas can be included.
- The information I have learned during training activity enabled me to develop myself.
- The information I have learned enabled vocational development.
- It has been determined that in order to follow developments and to update information, I think that the training activity needs to be continued.

Results Regarding Hypothesis

1. The teachers evaluation statements of ITFEP training programme showed no variation among participants in terms of gender.
2. The teachers evaluation statements of ITFEP training programme showed variation among participants in terms of age. A result reached according to this is that the individuals with 26 – 31 age range held a different opinion from other age groups. The teachers evaluation statements of ITFEP training programme showed a negative trend in the 26 – 31.
3. The teachers evaluation statements of ITFEP training programme showed variation among participants in terms of education. The teachers evaluation statements of ITFEP training programme showed negative trend among participants with a graduate level of education.
4. The teachers evaluation statements of ITFEP training programme showed no variation among participants in terms of school type employed.
5. The teachers evaluation statements of ITFEP training programme showed variation among participants in terms of length of service and specialization.
6. The teachers evaluation statements of ITFEP training programme showed variation among participants in terms branches.

Results Regarding Teachers Opinions

According to the opinions of the Information Technology Teachers filling the survey;

1. The teachers participating to the programme should emphasize on hardware and web design and a need to make more application,
2. Due to all teacher participants having different level of regarding computers and computer use the need to give training according to level of knowledge,
3. The need to take the opinion of the participants with regard to the time and place of the arrangement of training,
4. The lack of infrastructure in the places the training is held,
5. 180 hours duration is not sufficient for the effective implemetation of this comprehensive program
6. The need to organize courses and seminars during the year for the teachers in order to improve themselves and to share information,
7. The need to evaluate instructors individually,
8. To update knowledge, in order to be informed about current softwares and developments, in-service training even if it is not held face to face should be given through other methods.

Suggestions

According to the evidence found in this research and the observations made during the administration of this research the following suggestions are made.

The Suggestions Regarding the Information Technology Information Formator Teacher trainning Programme

1. The need to take the opinion of the teachers regarding the time for arranging the Information Technology Teachers Programme could be effective in increasing efficiency.
2. Before beginning the Information Technology Teachers Programme it could be more appropriate if teachers are divided into groups according to the level of computer use.
3. A more appropriate content could be made if the teachers opinions are taken during the preparation of the contents of the programme.
4. 180 hours of course duration has not been found short by participants and by extending the duration of this time a more effective trainning could be provided.
5. While the training programme is continuing, identifying the topics which are not understood, could eliminate difficiencies.
6. The decreasing the duration topics that are well known by all teachers could increase the duration of other topics.
7. By providing feedback regarding the complications faced in the places the teachers are employed, developmental training could be organized regarding these topics.
8. A higher quality training could be provided with the personal evaluation of instructors by the trainneess.
9. In order to follow new technological developments and to update information trainings could be held occasionally.
10. By carefull about the technical and hardware infrastructure of the places the courses are held the diffeciencies could be eliminated.

Suggestions for New Research

1. A research evaluating the training programme content and duration of teachers whos area of specialty is Information Technology and do not need to attend the programme.
2. A research evaluating Information Technology Formator Teachers education programme, its duration and the selection of teachers to the programme.
3. A research analysing the adequecy of the Information Technology Formator Teachers.

References

Akkoyunlu, B., Orhan, F. (2003), Eğitici bilgisayar formatör öğretmenlerinin (master) profilleri ve uygulamada karşılaştıkları güçlüklere ilişkin görüşleri, *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi, 24*,90–100.

Aktürk, N., (2007). *Mili Eğitim Bakanlığı Eğitim Teknolojileri Genel Müdürlüğü Bilişim Teknolojileri Formatör Öğretmen Eğitimi Programı*, Ankara: EĞİTEK.

Arslan, A. (2006). Bilgisayar Destekli Eğitim Yapmaya İlişkin Tutum Ölçeği. *Yüzüncü Yıl Üniversitesi Eğitim Fakültesi Dergisi, 3* (2), 24-33.

Başarıcı, R., Ural, A. (2009), Bilgisayar öğretmen adaylarının bilgisayar destekli eğitime yönelik tutumları, *International Online Journal of Educational Sciences*, *1* (1), 165-176.

Büyüköztürk, Ş., Çakmak, E. K., Akgün, Ö. E., Karadeniz, Ş., Demirel, F. (2010). *Bilimsel Araştırma Yöntemleri*. (7. Baskı). Ankara: Pegem Akademi, 21.

Cüre, F., Özdener, N. (2008), Öğretmenlerinin bilgi ve iletişim teknolojileri (BİT) uygulama başarıları ve BİT'e yönelik tutumları, *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi, 34*, 41–53.

Çepni, S. (2007). *Araştırma ve Proje Çalışmalarına Giriş*. (Genişletilmiş 3. Baskı). Trabzon: Celepler Matbaacılık, 37.

Daştan, İ. (2006). *Eğitimde Bilgi Teknolojilerinden Yararlanma Düzeyi ve Bir Uygulama*. Yayımlanmış Yüksek Lisans Tezi, Atatürk Üniversitesi Sosyal Bilimler Enstitüsü, Erzurum.

Dirisağlık, F. (2007). *Bilgisayar Formatör Öğretmenlerinin Bilgi Teknolojisi Sınıflarına İlişkin Görüşleri: Eskişehir İli Örneği,* Yayımlanmış Yüksek Lisans Tezi, Anadolu Üniversitesi Eğitim Bilimleri Enstitüsü, Eskişehir.

Doğan, S., (2010). *İlköğretim Okullarında Görev Yapan Yönetici ve Bilişim Teknolojisi Formatör Öğretmenlerinin Mevcut BTÖ Uygulamasına İlişkin Görüşleri: Karabük İli Örneği*. Yayımlanmış Yüksek Lisans Tezi, Gazi Üniversitesi Eğitim Bilimleri Enstitüsü, Ankara.

EĞİTEK. (2008). *Eğitici Bilişim Teknolojileri Formatör Öğretmen Görevlendirme Yazısı* (4732 sayılı). Ankara: MEB-EĞİTEK.

Erkan, S. (2004). Öğretmenlerin Bilgisayara Yönelik Tutumları Üzerine Bir İnceleme. *Kırgızistan-Türkiye Manas Üniversitesi Sosyal Bilimler Dergisi*, Sayı 12.

Eryılmaz, S. 2011, "*Web Ortamında Öge Gösterim Kuramına Göre Tasarlanan Kavram Öğretiminin Uygulaması: Programlamada Dizi Kavramının Öğretimi",* Ticaret ve Turizm Eğitim Fakültesi Dergisi, XX.

Eryılmaz, S. 2013, *"A Mobile-Based Instruction Application: The Effect of Mobile-Based Concept Instruction on Academic Achievement, Retention and Attitudes of Students",* Vol 4, No 17, ISSN (Paper)2222-1735 ISSN (Online)2222-288X, The International Institute for Science, Journal of Education and Practice (IISTE),s.205-217.

Gür, B.S., Özoğlu, M., Başer, T. (2010). Okullarda Bilgisayar Teknolojisi Kullanımı ve Karşılaşılan Sorunlar. *9. Ulusal Sınıf Öğretmenliği Eğitimi Sempozyumu (20-22 Mayıs 2010),* Elazığ, 929-934.

Gürcan, H.D., (2008). *Bahçeşehir Fen ve Teknoloji Lisesi Öğrencilerinin BT Yeterliliklerinin Ölçülmesi İçin Bir Model.* Yayımlanmış Yüksek Lisans Tezi, Bahçeşehir Üniversitesi Fen Bilimleri Enstitüsü, İstanbul.

Gürer, M.D. (2005). *Bilgi Teknolojisi Sınıflarında Denetim*. Yayımlanmış Yüksek Lisans Tezi, Abant İzzet Baysal Üniversitesi Sosyal Bilimler Enstitüsü, Bolu.

Gürol, M.Y., Çelik, N. (2008). Eğitici Bilgisayar Formatör Öğretmenlerinin Uygulamay İlişkin Görüşlerinin Belirlenmesi. *XIII. International Educational Technologies Conference, (6-8 May),* Eskişehir.

Honey, Wanda L. (2005). *Computer Lab Usage By Rural Elementary Classroom Teachers.* Yayınlanmamış Doktora Tezi. Illinois. Depeartment of Educational Administration And Higher Education In The Graduate School Southern Illinois University. [Aktaran: Dirisağlık 2005, 48].

Karahan, M. (2001). *Eğitimde Bilgi Teknolojileri Bilgisayar ve Öğretim Teknolojileri Eğitimi Ders Notları,* İnönü Üniversitesi Eğitim Fakültesi, Malatya 2001, 7.

Karasar, N., (2010). *Bilimsel Araştırma Yöntemi*. (21. Baskı). Ankara: Nobel Yayın Dağıtım, 77.

Keleş, E., Türedi, N. (2011). Bilişim Teknolojileri Formatör Öğretmenlerinin Bakış Açısı İle Okullardaki Bilgi Teknolojisi Sınıfları. *Eğitim Teknolojileri Araştırmaları Dergisi, 2*, 1.

MEB. (15.10.1993). *Milli Eğitim Bakanlığına Bağlı Örgün ve Yaygın Eğitim Kurumlarında Bilgisayar Laboratuarlarının Düzenlenmesi ve İşletilmesi ile Bilgisayar ve Bilgisayar Koordinatör Öğretmenlerinin Görevleri Hakkında Yönerge.* Tebliğler Dergisi, (2554), 661-667.

MEB. (1993). *"Milli Eğitim Bakanlığı'na bağlı Örgün ve Yaygın Eğitim kurumlarında bilgisayar laboratuarlarının düzenlenmesi ve işletilmesi ile bilgisayar ve bilgisayar koordinatör öğretmenlerinin görevleri hakkında yönerge,* Tebliğler Dergisi, Sayı: 2378, 212–219.

MEB. (2007). *Bilişim Teknolojisi Formatör Öğretmen Eğitimi Programı*. MEB Eğitim Teknolojileri Genel Müdürlüğü.

MEB. (2008a). *Bilişim Teknolojileri Formatör Öğretmen Görevlendirme Yazısı* (22168 Sayılı). Ankara: MEB-EĞİTEK.

MEB. (2008b). *Bilişim Teknolojileri Formatörlük Uygulaması Yönerge Taslak Metni*. Ankara: MEB.

Miheon, J. (1996). *Computer Use in Korean Schools* : Instruction and Administration, Computers Education, Vol. 26. No:4, 197-205, Elsevier Science Ltd. Printed İn Great Britain. [Aktaran: Altun 2007, 15].

O'Donnell, E. (1996). *Integrating Computers into the Classroom:* The Missing Key. London: The Scarecrow Pres, Inc. [Aktaran: Altun 2007, 15].

Orhan, F., Akkoyunlu, B. (2003). Eğitici Bilgisayar Formatör (Master) Öğretmenlerinin Profilleri ve Uygulamada Karşılaştıkları Güçlüklere İlişkin Görüşleri. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi, 24,* 90-100.

Özdamar K. (2002). *Paket Programlar ile İstatistiksel Veri Analizi.* Eskişehir: Kaan Kitabevi, s.661-669.

Sağıroğlu, Ş. (2001*). Herkes İçin Etkili Bilişim*. Kayseri: Ufuk Kitabevi.

Temur, S. (2001). *Bilgisayar Teknolojisi ve Kullanımı*. Konya: Çizgi Kitabevi Yayınları.

Toruş, K. (2010). *Bilişim Teknoloji Formatör Öğretmenlerinin Bilişim Teknoloji Karşılaştıkları Sorunları Yönetebilme Becerisi.* Yayımlanmış Yüksek Lisans Tezi, Marmara Üniversitesi Fen Bilimleri Enstitüsü, İstanbul.

Türkhan, H. (2008). *Milli Eğitim Bakanlığı'nın Bilgisayar Eğitimi Uygulamalarında Verilen Uzaktan Hizmet İçi Eğitimin Değerlendirilmesi.* Yayımlanmış Yüksek Lisans Tezi, Yeditepe Üniversitesi Sosyal Bilimler Enstitüsü, İstanbul.

Ulucak, E. M., Çakır, İ. (2008). *Bilgi ve İletişim Teknolojisi.* Ankara: Özne Yayın Dağıtım, 12.

Yelken, T.Y. (2009). İlköğretim Müfettişleri ve Formatör Öğretmenlerin Öğretim Programlarında Yer Alan Etkinliklerle İlgili Öğretmenlerin Karşılaştıkları Sorunlar ve Çözüm Önerileri Konusunda Görüşleri. *Adıyaman Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 2*, (3), 225-249.

Yalın, H. İ., Atasoy, B., Uluyol, Ç., Çakmak, E. K., Çakır, H., Ocak, M. A., Üstündağ, M. T., Şahin, S., Karataş, S., Somyürek, S., Karadeniz, Ş., Güyer, T. (2008). *İnternet Temelli Eğitim.* Ankara: Nobel Yayın Dağıtım, 77-78.

Yılmaz, M. (2007). Sınıf Öğretmeni Yetiştirmede Teknoloji Eğitimi. *Gazi Üniversitesi Eğitim Fakültesi Dergisi, 27* (1), 155-167.

Baykal, N. (2009). *Bilişim Teknolojileri Nedir?* Web: http://www.makaleler.com/teknoloji-makaleleri/bilisim-teknolojileri-nedir.htm adresinden 29.02.2012 tarihinde alınmıştır.

http://fatihprojesi.meb.gov.tr/tr/icerikincele.php?id=4 Erişim tarihi: 25.02.2012.

http://fatihprojesi.meb.gov.tr/tr/icerikincele.php?id=6, Erişim tarihi: 25.02.2012.

http://www.tdk.gov.tr/index.php?option=com_gts&arama=gts&guid=TDK.GTS.4faacb38b45560.24983214 Erişim tarihi: 28.02.2012.

http://www.etad.net/dergi/index.php?journal=etad&page=issue&op=view&path%5B%5D=5 Erişim Tarihi: 23.02.2012.

http://www.insanbilimleri.com/ojs/index.php/uib/article/viewFile/1281/561 Erişim Tarihi: 24.02.2012.

http://ybuankara.academia.edu/MuratOzoglu/Papers/1402046/Okullarda_Bilgisayar_Teknolojisi_Kullanimi_Ve_Karsilasilan_Sorunlar Erişim Tarihi: 20.03.2012.

http://yetgm.meb.gov.tr/haber4.html Erişim tarihi: 25.02.2012.

Eryilmaz, Selami: Bolu, Turkey is born. Hacettepe University, Educational Science, measurement and evaluation in education license was completed in 1989. Gazi University, a master's degree in educational sciences has made its main institutes. At the same institute has received the title of Doctor of Educational Technology. Has been working as an assistant professor at Gazi University. Work areas; e-learning, distance learning, mobile learning, learning objects, learning warehouses, e-content development and e-learning in the form of assessment and evaluation is on.