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General High School Students' Opinions on the Use of Project FATİH (Sample of Muratpaşa District of Antalya Province)*

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Abstract

The purpose of this study was to determine the opinions of general high school students regarding the usage level of project FATİH started to be implemented in the academic year 2012 – 2013. In this study, survey method was used and the sample of research consisted of the 375 students studying in 16 high schools in which the project FATİH was being implemented in Muratpaşa district of Antalya. For the statistical analysis, by the help software SPSS 18.00 and LISREL 8.54, frequency, percentage, mean, standard deviation, t-Test, LSD, and One-way ANOVA tests were used. According to the results obtained from the study, regarding the usage level of Project FATİH, students had "medium" level positive opinion in terms of the factors "Use of e-content", "Training requirement", and "Institution adequacy" while they had "high" level of positive opinion on the factors "Teaching processes" and "Self-adequacy and project yields". In addition, for the findings it can be said that students studying in the branch of social sciences had lower positive opinion on the usage of e-content during courses. Finally, it is understood that 9th grade students had very high level of opinion in terms of all dimensions with respect to their friends in higher education levels..

Keywords: Project FATİH, Student Opinions

Introduction

Technology originating from the word "technic" in Greek and the science related to technic in its grammatical meaning can be defined as the artefact of the science (Işık, 1981:159, Alkan, Deryakulu, & Şimşek, 1995:81). In other words, technology can also be defined as "the applied information source for improving the efficiency of the production and marketing of available goods and services and for producing new goods and services" (Dunning, 1993:10).

20th century is a more productive century in which the relationship between the technology and the science is exactly expressed and in which there are too many discoveries for the other social development issues. Technological developments revealed some irreversible improvements in many areas such as communication, transportation, production, battle, medicine and also are the trigger for important debates. After the benefits provided by the systemic relationship between practice and academic assumptions, technological progress has been carried out by the specialized researchers in the research and development laboratories funded by industrial companies and governments (McNeill, 2003:651).

Without a doubt, the most intensive application of technological developments is in the field of education. Therefore, education processes are directly affected by the technological developments. Orhan and Akkoyunlu (2003) revealed that technological developments affect the progress of the education, not only in only one aspect but also in many aspects. According to many authorities, an integration between technology and education will make the whole processes, which include everything from the learning environment to the learning materials, more efficient, and as a result, more qualified individuals will be grown up (İnel, Evrekli, & Balım, 2011:129).

According to Aggarwal (2000), 21st century have the features below:

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- Independent of space and time
- Directed to the aim and the result,
- Student-centred,
- Focused on active team-work,
- Directed to get “learning” as output,
- Including differences in between ability and language (Yılmaz & Horzum, 2005:110).

At this point, in the light of the reasons mentioned above, it would be appropriate to talk about the concept of educational technology. Rıza (1997) described the educational technology as "a discipline that plans the learning systems, determines all possible methods, sources, and communication tools of that learning system, complements creative instructional techniques available for providing the most efficient and positive learning" (Rıza, 1997:27). In addition to this definition, Alkan (1997) explained the relationship between process, learning stage, and the environment in the context of educational technology with the expression: "it is related with the execution of education and activities for setting up the stage and adjusting the environment about determining the behaviours, educational status, and actions for giving roles." Moreover, Çilenti (1998) described the educational technology as "a discipline studying on making individuals reach to the special aims of education by evaluating the results and by using accessible sources about the educational data of behavioural sciences' communication and learning, manpower and non-manpower sources brilliantly and skilfully".

As it is known, there are three main elements of education: teacher, student, and environment. If communication between these elements is to be healthy, this is the duty of educational technology. In order to achieve the desired quality of education, achieving the goals of education by using the technology is a requirement for our century. Similarly, to avoid keeping away from developments in science and technology, developing the educational system and getting the standards of the current age are obligatory. Society, individuals within a society and knowledge are renewing themselves and therefore education must also be updated. In this update process, answering the questions on what the specific environments and technologies of education are and in which ways the objectives of education and training will be carried out are in the scope of educational technology. (Numanoğlu, 1995:67).

In the learning process, one of the factors that encourages students to focus on is the use of technology. By this way, while the student's self-confidence and motivation levels are increasing, their cognitive skills are also improved (Heafner, 2004:47). Of course, to provide these benefits, there are some important duties for teachers. Roblyer and Edwards (2005) focused on the teachers about the use of technology and studied on the reasons of why teachers used technological materials in their classrooms. According to this research, teachers' and therefore students' reasons for using technology are as follows:

- a. Motivation,
- b. Educational skill,
- c. Increased productivity of the teacher,
- d. Required skills in the information age,
- e. Supporting new instructional methods.

In the literature, there are researches that are focusing on how and how much integration between technology and educational processes is provided. Hew and Brush (2007) emphasized the necessity of this integration but also they argued that for the schools, there would not be an exact definition of this integration. Ajjan and Hartshorne (2008) agree that usage of internet and desktop software like word processors and spreadsheets installed on desktop and laptop computers in schools, if they are used for educational purposes, is the indicator of the integration of technology. Cuban, Kirkpatrick, and Pack (2001) showed that this integration can be a high-level or a low-level integration. According to their study, low-level integration is only the simple usage like making researches on internet in schools, while high-level integration is doing some more complex duties like preparing multimedia presentations, collecting data and explaining data for the projects.

As a result of the improvements in the electronic world, computers occupied a big place in our lives and therefore it is assumed that today's technology and computers are synonyms. In this regard, when educational technology is mentioned, it is inevitable that the education should get the support of computers. Examined in the context of educational technology, the usage of computers as a teaching-learning tool is more important than its usage on other fields. Because, the main function of educational technology is to ensure the teaching-learning process more efficient and effective. There are different classifications of computers in terms of their services and type of their usage in education. According to a classification made by Taylor, computers in teaching process are used (Taylor, 1980:7):

- “As a tool to process words, information and numbers,
- As a learner in a case in which a student uses computer to perform a task, in the simulation environment under the control of the user, and in a case which was created by expert systems and by programming languages,
- As a tutoring media that enables to teach a subject through a computer software.”

In the view of Akpınar et al (2005), education is performed under a strict control of teachers for years and the teacher is only the person who gives information. After the students took the primary place in the process of information construction, teachers' role also changed and mainly they became a guide in this process. Although students are in the centre of learning, this process became more obvious by the gains of the computer aided instruction (Bayturan, 2008:11). Computer aided instruction is the use of computers in teaching process not as an option but as an element making the system more powerful (Uşun, 2004:40)

The pioneer ideas on computer aided instruction had been put forward in the 1980s and the first attempts had been in 1987. In 1988 - 1989 academic year, the first project titled "Project of Computer Aided Instruction" began to be carried out. Nowadays, the project carried out by the Ministry of National Education and titled "The Project of FATİH (The Movement of Increasing the Opportunities and Making Technology Better) in Education" is a popular subject in the context of a reform on educational technology.

The Project FATİH announced by the Ministry of National Education in December in 2010 has the purpose of supplying broadband internet access in all classrooms and providing the necessary hardware in the context of improving the school's technological infrastructure. In addition, creating educational electronic contents (e-content) and integrating these e-contents with the teaching processes are the objectives of the project (Perkmen & Tezci, 2011:6). To perform these objectives, smart boards and auxiliary technological equipment will be provided for primary and secondary schools in the whole country, teachers and students will be given tablet pcs, tablet pcs will have the whole related textbooks, and many of the educational materials will be reached over the Internet. For teachers, an in-service training that aims to adapt teachers for the new technological instruments is also planned (Öncü, 2013:394; MEB, 2013). Some of these applications has been carried out and some of them are still waiting to be carried out since the project is still at the stage of supply.

A research conducted by Dinçer, Şenkal, and Sezgin (2013) points out that although students computer literacy is very low, their attitudes towards the project is very high. In addition, in Sünkür, Arabacı, and Şanlı's (2012) study that investigated the usage of smart boards it was expressed that students have positive attitudes towards using smart boards during courses. In another study that was examining the usage of smart boards during lectures again, Kırbağ-Zengin, Kırılmazkaya, and Keçeci (2011) had a conclusion that, similar with the Sünkür and et al.'s work, students had positive feelings with using smart boards but this positive feelings might arise due to curiosity and as time goes by another study had to be performed. In a qualitative research studied by Pamuk, Çakır, Ergun, and Yılmaz (2013), there were noted very interesting results in terms of the usage of smart boards by teachers and the tablet-pc's by students. According to results of that study, teacher's regard a smart board is a new type of projection tool, and all students and teachers suffer from the disconnection between smart boards and tablet pc's. When the literature on the project FATİH, it can be seen that there are so many researches on different aspects of the topic, however, it is hard to see studies investigating the attitudes for different variables like gender, educational level and branch.

In the light of the information above, the aim of this study is to determine the opinions of general high school students on the use of the Project FATİH. For this purpose, answers for the questions below are sought:

1. What are the opinions of general high school students on the use of the Project FATİH?
2. Do the opinions of general high school students differentiate significantly in terms of students' gender, branch, and education level?

Method

Research Pattern

In this study, which is aimed to determine the opinions of general high school students in the Ministry of National Education in Muratpaşa District of Antalya, individual survey model was used.

Population and Sampling

Population of the study consists of 14.185 students studying in 16 different high schools where the Project FATIH is carried out in Muratpaşa district of Antalya Province in 2012 - 2013 academic year. While considering the Alpha level as .05, the sampling calculation is performed by the formula below (Özdamar, 2003:116-118). (N: Number of units of population, n: Sampling size, Z_{α} : α = (for 0.05) 1.96, d= Sampling error, σ = Standard deviation of the population)

$$n = \frac{N \cdot \sigma^2 \cdot Z_{\alpha}^2}{(N-1) \cdot d^2}$$

As a result of this calculation, a random sampling that has 375 (3%) students in 16 different high schools in which the Project FATIH was being carried out was used.

Data Collection Tool

While trying to determine the opinions of general high school students on the use of the Project FATIH, a literature review was carried out and the questionnaires in the literature were investigated. The survey titled "Survey for the Project FATIH" which was prepared by the team of the Project FATIH working for the Ministry of National Education was redesigned and survey's items were adapted for students. Items obtained after literature review were also added to the survey and so a survey that has a total of 40 items was obtained. This survey was necessary to be used because opinions of students could be revealed by the points it deals. To perform the analysis on the opinions, the survey played a key role to gather data from participants. Since the validity and the reliability of the survey redesigned would be implemented, for that pre-analyze process, there was no need to work on the survey prepared by the Ministry of National Education. After taking the experts' opinions for the redesigned survey's items, the survey in a format of 5-point Likert type that has the options "Strongly agree, agree, neutral, disagree, strongly disagree" was delivered to general high school students. The analysis of the quantitative data was made by considering the range analysis of 5-point Likert Scale: (1,00 - 1,80) Very low, (1,81 - 2,60) : Low, (2,61 - 3,40) : Medium, (3,41 - 4,20) : High, (4,21 - 5,00) : Very high

Analysis

For the overall objective of the study, data collected in order to find answers for the sub-problems was entered directly into the computer and to perform the statistically analysis on data SPSS 13.0 and LISREL 8.54 software packages were used. To determine the opinions on the use of the Project FATIH, by the help of the software package SPSS, frequency (f), percentage (%), mean, standard deviation, t-Test, LSD and one-way ANOVA analysis tests were used. In the study, for the evaluation of all statistical analysis, 0.05 was accepted as the significance level.

According to the exploratory analysis, the value of Kaiser-Meyer-Olkin (KMO) test result was .822 and Bartlett's Sphericity test result was 5375 ($p > .000$). This test measures the adequacy of the sampling size and deals with the size of the sampling. To do that, the size of correlation coefficients and partial correlation coefficients are compared. If the value found by KMO test is below 0.50, it can be said that the value is out of the accepted level, if the value is 0.60, average acceptance; if it is 0.70, good; if it is 0.80, very good; and if it is 0.90, the acceptance level is perfect (Karagöz & Kösterelioğlu, 2008:86-87). In this study, it was seen that KMO test value was higher than 0.60 and Bartlett Sphericity test was meaningful; so factor analysis was able to be applied for the data.

As a result of factor analysis, to determine under how many factors the survey items were grouped and the compliance of the items' weight, the result of the principal components were investigated. When looked at "Total Variance Explained", it was seen that survey's items were grouped under 10 factors. After offering 5 factors, the Eigen values were 23,370%, 13,525%, 9,892%, 6,647%, and 5,736%; by the way the rate of the total variance explained was also 59,170%.

After the calculations for the validity of the survey above, Cronbach Alpha coefficients were calculated for each of factors separately and for the whole of the survey for reliability. The total reliability level of all factors was .8500. Five factors were also named as "The use of E-content", "Training Requirement", "Teaching Processes",

"Self-Adequacy and Project Yields", and "Institution Adequacy" and they had the reliability levels .7990, .8770, .8680, .8010, and .7440 respectively.

After performing the exploratory factor analysis, to verify the factoring structure, a confirmatory factor analysis was applied. As a result of confirmatory factor analysis (Figure 1), fit indexes were $(\chi^2/df) = 2.441$, RMSEA=0,075, GFI=0,88, and AGFI=0,83. Analysed fit indexes, it was seen that the value of χ^2/df was in the range of acceptance and the values of RMSEA, GFI, and AGFI were very close to acceptance range. As a result, the 5-factor structure of the survey was strengthened by the confirmatory factor analysis. Fit indexes of the model and the range of acceptance are given in Table 1.

Table 1. Values of Confirmatory Factor Analysis and Fit Indexes of the Survey about the Opinions of Students on the Use of the Project FATIH

Values	χ^2/df	RMSEA	GFI	AGFI
Model	2,441	0,075	0,88	0,83
Criteria	2-3 *	0,05 - 0,08 *	0,90 - 0,95 *	0,85 - 0,90 *

* Accepted ranges (Schermelleh-Engel, Moosbrugger ve Müller, 2003:52)

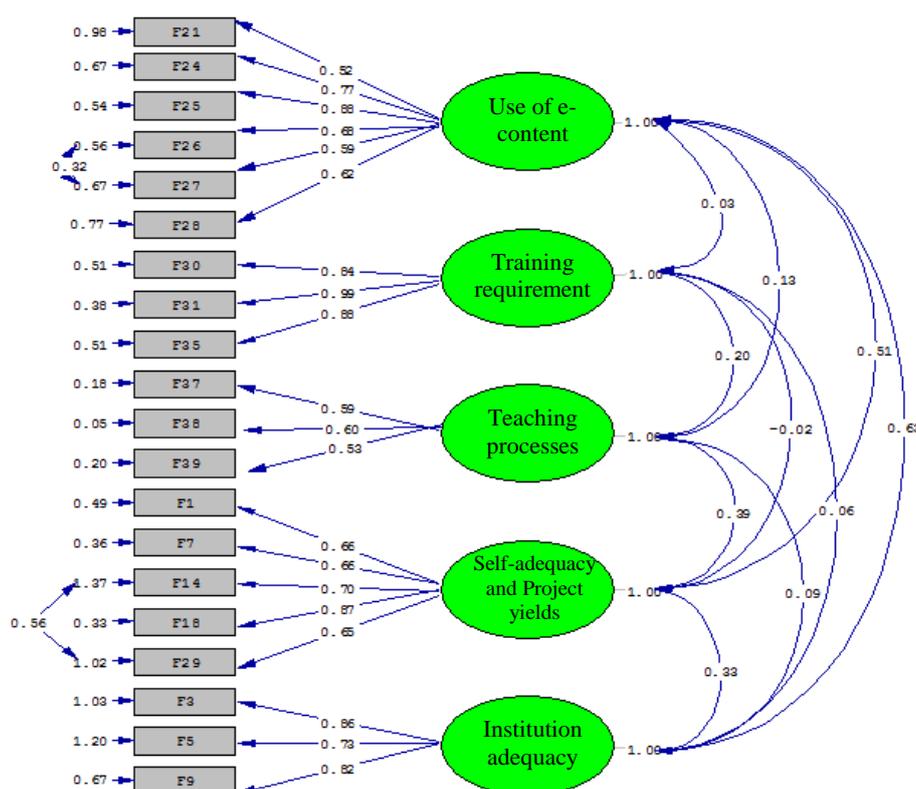


Figure 1: Model of Confirmatory Factor Analysis of the Survey about the Opinions of Students on the Use of the Project FATIH

Findings and Interpretations

This section consists of the findings and interpretations obtained by analysing the data of problem statement and sub-problems' statement.

Demographic Characteristics of Students

370 students who were studying in general high schools participated in this research. 193 (52,2%) of students were female and 177 (49,1%) were male. 156 (42,2%) of the students were studying in the branch of Science while 110 (29,7%) of them were studying in Turkish-Math and 13 (4,3%) of them were studying in social science. If we look at the education level of the students, it is seen that 89 (24,1%) of the students are in 9th

grade level, 120 (32,4%) of them are in 10th grade level, 90 (24,3%) of them are in 11th grade level, and 71 (19,2%) of them are in 12th grade level.

Opinions of General High School Students on the Use of the Project FATIH in General

Findings related to general high schools students' use of the project FATIH are given in Table 2.

Table 2. General High School Students' Opinions on the Use of the Project FATIH in General

Factor	\bar{X}	SD
Use of E-Content	3,1650	,82455
Training Requirement	2,8422	1,22812
Teaching Processes	3,5724	,84235
Self-Adequacy and Project Yields	3,7591	,85966
Institution Adequacy	2,7419	1,01576

General high school students' use of the Project FATIH had an average value in terms of the factors "use of e-content" ($\bar{X} = 3,17$), "training requirement" ($\bar{X} = 2,84$), and "institution adequacy" ($\bar{X} = 2,74$); and it had a high value in terms of the factors titled "teaching processes" ($\bar{X} = 3,57$) and "self-adequacy and project yields" ($\bar{X} = 3,76$).

Looking at the averages above, it can be said that general high school students considered themselves as enough for the use of the project and they had a high level of positive opinion on the yields of the project; however, for the stage of the project implementation, the students did not consider their institution as sufficient.

General High School Students' Opinions on the Use of the Project FATIH According to Gender Variable

Examining the data in Table 3, it was seen that there was no difference in the opinions of the students in terms of the factors "use of e-content" [$t_{(368)} = 0,59$; $p > ,05$], "training requirement" [$t_{(368)} = -0,30$; $p > ,05$], "teaching processes" [$t_{(368)} = -0,42$; $p > ,05$], "self-adequacy and project yields" [$t_{(368)} = 0,13$; $p > ,05$], and "adequacy of institution" [$t_{(368)} = -0,06$; $p > ,05$] according to gender variable.

Table 3. t-Test Results for General High School Students' Opinions on the Use of the Project FATIH According to Gender Variable

Factor	Gender	N	\bar{X}	S	df	t	p
Use of e-content	Man	177	3,19	,84	368	,59	,553
	Woman	193	3,14	,80			
Training requirement	Man	177	2,82	1,26	368	-,30	,760
	Woman	193	2,86	1,19			
Teaching processes	Man	177	3,55	,84	368	-,42	,671
	Woman	193	3,59	,83			
Self-adequacy and Project yields	Man	177	3,76	,85	368	,13	,890
	Woman	193	3,75	,86			
Institution adequacy	Man	177	2,73	1,01	368	-,06	,949
	Woman	193	2,74	1,02			

* $p < ,05$, ** $p < ,01$, *** $p < ,001$

Male ($\bar{X} = 3,19$) and female ($\bar{X} = 3,14$) students mentioned that the use of e-content in the lessons had an average level and likewise male ($\bar{X} = 2,82$) and female ($\bar{X} = 2,86$) students had an average level of opinion on whether they needed an education for the use of the project or not. The reason for these results may be the fact

that students get familiar with the technology so earlier that they have a high level of ability to use technological devices. In respect to the factor "teaching processes" male ($\bar{X} = 3,55$) and female ($\bar{X} = 3,59$) students agreed that the curriculum and the project had a high level of integration. Both men ($\bar{X} = 3,76$) and women ($\bar{X} = 3,75$) students' average scores showed that they had a high level of self-adequacy on the use of the project and also they had a high level of opinion on the yields of the project. Examined the results obtained for the factor "institution adequacy", it can be said that both male ($\bar{X} = 2,73$) and female ($\bar{X} = 2,74$) students had an average level of opinion. By this result, it can be thought that both genders did not consider their institution as enough for the use of the project FATIH.

General High School Students' Opinions on the Use of the Project FATIH According to Branch Variable

Examining Table 4, it was seen that there was no meaningful difference between students grouped by their branches in terms of the factors "use of e-content" [$F_{(2-276)} = 0,819$, $p < .05$], "training requirement" [$F_{(2-276)} = 0,476$, $p < .05$], "teaching processes" [$F_{(2-276)} = 0,912$, $p < .05$], "self-adequacy and project yields" [$F_{(2-276)} = 0,962$, $p < .05$], and "institution adequacy" [$F_{(2-276)} = 2,792$, $p < .05$].

Table 4. One-Way ANOVA and LSD Tests Results for General High School Students' Opinions on the Use of the Project FATIH According to Branch Variable

Factor	Source of variance	Sum of squares	Degree of freedom	Mean square	F	p	Meaningful difference
Use of e-content	Between groups	1,044	2	,522	,819	,442	None
	Within groups	175,914	276	,637			
	Total	183,738	278				
	1. Science (3,09, S:0,82) 2. Turkish-Math (3,08, S:0,76) 3. Social Sciences (2,80, S:0,79)						
Training requirement	Between groups	1,365	2	,683	,476	,622	None
	Within groups	395,518	276	1,433			
	Total	396,884	278				
	1. Science (2,82, S:1,16) 2. Turkish-Math (2,94, S:1,24) 3. Social Sciences (2,67, S:1,25)						
Teaching processes	Between groups	1,374	2	,687	,912	,403	None
	Within groups	207,835	276	,753			
	Total	209,209	278				
	1. Science (3,45, S:0,90) 2. Turkish-Math (3,55, S:0,81) 3. Social Sciences (3,26, S:0,99)						
Self-adequacy and Project yields	Between groups	,059	2	,029	,039	,962	None
	Within groups	209,893	276	,760			
	Total	209,952	278				
	1. Science (3,64, S:0,95) 2. Turkish-Math (3,62, S:0,72) 3. Social Sciences (3,58, S:1,05)						
Institution adequacy	Between groups	5,289	2	2,644	2,792	,063	None
	Within groups	261,375	276	,947			
	Total	266,664	278				
	1. Science (2,66, S:0,96) 2. Turkish-Math (2,73, S:1,02) 3. Social Sciences (2,55, S:0,68)						

* $p < .05$, ** $p < .01$, *** $p < .001$

Although there was no statistically significant difference between students in respect to their branches, it was obvious that students studying on social sciences had a lower positive opinion on the factors "teaching processes" ($\bar{X} = 3,26$) and "institution adequacy" ($\bar{X} = 2,05$) than students studying on other branches. While students studying on the branches science and Turkish-Math had a high level of positive opinion on teaching processes and the integration of the project, students studying on social sciences had an average level of positive opinion. Moreover, while students in science and Turkish-Math branches considered their institutions as moderate enough for the implementation of the project, students in social sciences branch thought that their institution was not enough for the use of the project.

General High School Students' Opinions on the Use of the Project FATIH According to Education Level Variable

As seen in Table 5, in respect to education level variable, there was a meaningful difference between student groups in terms of the factor "use of e-content" [$F_{(3-366)} = 4,367$, $p < .05$]. According to the LSD test which dealt with determining in which groups this difference occurred, it was obvious that there was a difference between 9th grade students ($\bar{X} = 3,4204$) and the others (10th grade ($\bar{X} = 3,1685$), 11th grade ($\bar{X} = 3,0054$), 12th grade ($\bar{X} = 3,0412$)). Examined the averages, it can be said that 9th grade students thought that there was a high level of e-content usage in their lessons while the rest grade level of students thought that there was a moderate level of usage.

Analysed "training requirements" factor [$F_{(3-366)} = 1,021$, $p < .05$], there was no difference between student groups 9th grade ($\bar{X} = 2,7621$), 10th grade ($\bar{X} = 2,8754$), 11th grade ($\bar{X} = 2,9992$), and 12th grade ($\bar{X} = 2,6876$). According to the averages, students in all grade levels needed training related with the use of the project's elements at a medium level.

Table 5. One-Way ANOVA and LSD Tests Results for General High School Students' Opinions on the Use of the Project FATIH According to Education Level Variable

Factor	Source of variance	Sum of squares	Degree of freedom	Mean square	F	p	Meaningful difference
Use of e-content	Between groups	9,186	3	3,062	4,637**	,003	1-2, 1-3, 1-4
	Within groups	241,688	366	,660			
	Total	250,874	369				
	1.9 th grade (3,42, S:0,82) 2. 10 th grade (3,17, S:0,77) 3. 11 th grade (3,01, S:0,83) 4. 12 th grade (3,04, S:0,85)						
Training requirement	Between groups	4,620	3	1,540	1,021	,383	None
	Within groups	551,933	366	1,508			
	Total	556,553	369				
	1.9 th grade (2,76, S:1,30) 2. 10 th grade (2,88, S:1,22) 3. 11 th grade (3,00, S:1,16) 4. 12 th grade (2,69, S:1,25)						
Teaching processes	Between groups	10,162	3	3,387	4,926**	,002	1-2, 1-3, 1-4
	Within groups	251,663	366	,688			
	Total	261,825	369				
	1.9 th grade (3,86, S:0,69) 2. 10 th grade (3,52, S:0,80) 3. 11 th grade (3,41, S:0,95) 4. 12 th grade (3,52, S:0,87)						
Self-adequacy and Project yields	Between groups	26,630	3	8,877	13,203***	,000	1-2, 1-3, 1-4, 2-3,
	Within groups	246,066	366	,672			
	Total	272,696	369				
	1.9 th grade (4,13, S:0,71) 2. 10 th grade (3,86, S:0,78) 3. 11 th grade (3,55, S:0,79) 4. 12 th grade (3,40, S:1,02)						
Institution adequacy	Between groups	10,246	3	3,415	3,374**	,019	1-4
	Within groups	370,477	366	1,012			
	Total	380,723	369				
	1.9 th grade (2,97, S:1,07) 2. 10 th grade (2,76, S:0,96) 3. 11 th grade (2,70, S:1,00) 4. 12 th grade (2,47, S:1,00)						

* $p < .05$, ** $p < .01$, *** $p < .001$

There was a meaningful difference between student group in terms of the factor "teaching processes" [$F_{(3-366)} = 4,926$, $p < .05$]. Based on the LSD test detecting this difference and the averages, it can be said that 9th grade ($\bar{X} = 3,8562$) students thought there was a higher level of integration with respect to 10th grade ($\bar{X} = 3,5187$), 11th

grade ($\bar{X} = 3,4086$), and 12th grade ($\bar{X} = 3,5151$) students. Therefore, it was understood that 9th grade students were satisfied with the integration between the present teaching processes and the project at a higher level.

There was also a meaningful difference between the student groups in terms of the factor "Self-adequacy and project yields". According to LSD test results, this difference occurred between 9th grade ($\bar{X} = 4,1284$) students and students in all other grades; 10th grade ($\bar{X} = 3,8581$), 11th grade ($\bar{X} = 3,5468$), and 12th grade ($\bar{X} = 3,3979$). Averages indicated that 9th grade students thought they were more sufficient for the application of the project than other grades. In addition they also thought that materials offered by the project would make a considerable contribution to the education processes.

In addition to those differences above, there was also a difference between student groups in the factor "institution adequacy" [$F_{(3-366)} = 3,374$, $p < .05$]. According to LSD test, it was seen that this difference occurred between 9th grade ($\bar{X} = 2,9745$) and 12th grade ($\bar{X} = 3,2408$) students. Analysed the means, although both groups believed that their institution was moderate enough for the application of the project, 12th grade students had more positive opinion on this factor than 9th grade students.

Conclusion and Suggestions

Among students, analysed their opinions on the use of the Project FATİH, there was no meaningful difference in respect of all factors. Within the factors "use of e-content", "training requirement", and "institution adequacy", without being dependent from gender variable, students had a moderate level of positive view while they had a high level of positive view in terms of the factors "teaching processes" and "self-adequacy and project yields". Although there was no meaningful difference in the opinions of students according to gender variable, when we analysed the mean values, it was seen that women students had more positive views than men students. This result is also consistent with the results of the study performed by Işıksal and Aşkar (2003). Both genders did not consider their institution as enough for the implementation of the project. This result can be explained by their age, by having a lifestyle that is full of technological devices, and by expectations of being presented those technological devices also in the schools as they get very familiar with the technology so early.

Examined the opinions of general high school students on the use the Project FATİH dependent on branch variable, there was no meaningful differences in all factors. According to branch variable, students thought that they needed a training on the use of the project and the use of e-content presented by the project in their lessons were in a moderate level. On the other hand, for the factor "self-adequacy and project yields" they had a high level of positive opinion. Although there was no meaningful difference in the factors "institution adequacy" and "teaching processes", when the mean values were analysed, it might be said that students studying in the social sciences had a lower level of positive opinion than other fields. This result gave an idea to us about that in each element of teaching processes faced by social sciences students, there was not enough update for the project and also about that the components of the project were not used efficiently in their lessons.

Dependent on the education level variable, there were meaningful differences in the opinions of the student for all factors except the factor "training requirement". All students, independent of their grade level, thought that they needed training in a moderate level for the use of the project. About the use of e-content in their lessons, 9th grade students thought that there was a high level of usage while all other grade levels thought there was a moderate level of usage. For the factor "institution adequacy", 12th grade students thought that their institution was not enough for the implementation of the project while other groups thought that the institution had a moderate level of adequacy. Analysed the mean values of the factor "teaching processes", it might be seen that the meaningful difference occurred between 9th grade students and all other grade levels. Although there was a meaningful difference between groups, students in all grade levels thought that an update in teaching processes for supporting the implementation of the Project FATİH was necessary. According to the mean values, 9th grade level students' reason for having a high level of positive opinion on the use of e-content might be explained by they had lots of e-content prepared for their grade level. Having lots of e-content but not having those materials integrated with the current curriculum as well could be shown as the cause of 9th grade level students' discomfort. Moreover, it might be thought that high level of e-content usage in 9th grade level affected students' high level of expectations on the changes provided by the Project FATİH and students' perceptions of self-adequacy directly.

In the scope of the Project FATİH, installations of interactive smart boards in the schools were completed and it was found that the students had high level of expectations from the project. However, it was also found that

students thought the hardware settings were not enough to apply the project. It was necessary that the lack of hardware infrastructure should be identified and fulfilled by the authorities. Moreover, there should be a team of technicians to solve immediately the problems occurring in schools.

In this study, curriculum and classroom activities are known as the factor "teaching processes". These components should be in coherence with the interactive smart boards and e-content such as animations, simulations, online question banks, and online exams and also these components should be presented in an online platform.

A collaboration between Ministry of National Education and Higher Education Board should be established to train teacher candidates for preparing and managing the e-contents in education faculties. By doing that, teacher candidates will be ready for the use of the Project FATİH and so that students will benefit from their teachers at a maximum level.

The Project FATİH has started to be carried out in general high schools in 2012 - 2013 academic year, and then on it is going to be carried out in all primary and secondary schools. In the studies related with this subject, researchers may expand the population to primary and secondary schools' principals, teachers, and students. By doing that a general opinion of different kinds in terms of the role in school can be obtained for the use of the project.

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