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Identifying the Usage of Information Technologies and Literacy Levels

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Abstract

In parallel with the rapid developments in informatics and technology, the qualities that are expected from an individual have also changed. Today, utilizing the available technologies to get the information changing and growing constantly is not a privilege but a must. The individuals are required to know how to access to information, how to utilize it for their needs and to keep up with the developing technology. This study aims to define the two-way relationship between the information technologies literacy levels and the levels of information technologies usage based on the data obtained from 200 undergraduate students studying at Trakya University.

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Keywords: Information Technologies, Literacy, Media, Computer skills, Informatics

1. Introduction

Information is the data that is processed, meaningful to its holder having real value and strategic importance for decision making (Cankorkmaz, 2010). Information is a collection of meaningful, interrelated and organized data that is first kept in an individual's mind and then shared with the other members of the society via media where the information is saved (Sagsan, 2008). Information makes the social adaptation easier and helps people gain foresight

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and have self-regulation. It is also a prerequisite for the formation of new information and knowledge helping socio-economic development and the rise of more powerful societies by creating qualified work force. Today's individuals should have some basic skills for using resources, information, and technology; forming and retaining interpersonal relationships and conducting system analysis (Kurbanoglu, 2011).

If we try to define the literacy led by information process, it is the skills and abilities to use the communicative symbols which carry social meanings effectively (Balcı, 2013). In a traditional way, literacy is to help individuals gain new skills for life-long learning and more active learning (Som & Kurt, 2012).

Today, the world needs individuals who have life-long learning skills, in other words, individuals who can renew their knowledge all the time, adapt to changes, follow new trends and build knowledge while being a conscious consumer of knowledge. For a graduate, being equipped with all the necessary computer knowledge and skills is a great advantage for employment. The individuals should be educated in accordance with the structures in society as they will have certain social roles and encounter some social problems. Information Technologies have increased the learning capacity of individuals and made the adaptation to social life easier. The ones who can make use of information technologies are one step ahead from the others in every part of life.

Knowledge, in general, is defined as "the intellectual product" or "learned thing" that is acquired through thinking, judging, reasoning, reading, observing and experimenting. The reason of technological innovations in education is probably the parallelism between the current problems in education and the potential of solving problems using new technologies (Kiper, 2008). International Technology Education Association defines the technology literacy, which is used synonymously with information technology literacy, as the skills for "using, managing, evaluating and understanding technology" (Keskinkılınç, 2003).

2. Materials and Method

2.1. Problem Statement

Do the scores of students at School of Applied Disciplines in the Information Technologies Literacy Questionnaire differ by age, gender, department, the educational background in terms of information technologies, the occupancy of computer technologies, and the extent of time which the students use information technologies during the classes?

2.2. Method

The aim of this study is to describe the relationship between the computer technologies literacy levels of freshmen and their demographic information and the use of computer technologies. For the purpose of the study, descriptive survey method was used. Descriptive studies help define the related situations as they are in reality (Karasar, 2008). Relational screening model is also used to determine the relationship between two or more variables. Screening research is the research conducted using larger samples which identifies the attitudes, interests, skills in certain areas (Buyukozturk et al., 2008).

2.3. Study Group

200 freshmen studying at Trakya University, Kesan Yusuf Capraz School of Applied Disciplines during the academic year in 2014-2015 make up the study group of this research.

2.4 Data Collection

The questionnaire used in the survey has 3 subdivisons which are personal information, use of information technologies and information technologies literacy. In the first subdivision, there are questions about the age, gender

and departments. The second part is about the students' use of CT. 5 point likert scale was used to address the frequency of CT use which includes "Definitely disagree (1), Disagree (2), Not sure (3), Agree (4), Definitely agree (5)" options. The third part of the questionnaire includes the CT literacy scale. Information Technologies Literacy Scale used in the master's thesis titled "The Information Technologies Literacy Levels of Primary School Teachers and Identifying Their Levels of Use" Varıs (2008) was applied to the related group after some changes and alterations were made in accordance with the expert opinions (Varıs, 2008) (Demiraslan & Kocak, 2005).

2.5 Data Analysis

SPSS 20 (Statistical Package for Social Sciences) was used for the analysis of the data. Percentage and frequency analysis were used for the demographic distribution, the levels of information technologies use and the levels of information technologies literacy. One-Way Anova, Independent Sample T-Test and Cronbach Alpha internal consistency test for $p<.05$ level of significance were used to show the difference between group in terms of students' total scores they got in Information Technologies Literacy Questionnaire, age, gender, department, information technologies education background, the duration of information technologies use and the extent of time which the students use information technologies during the classes. The reliability coefficient for the whole scale was found .94.

3. Findings

In this section, frequency and percentage distributions of the students' genders, ages and departments. %47,5 (95 students) of the participants were males and % 52,5 (105 people) were females; %34,0 (68 students) of the participants were between 18 and 20, %59,5 (119 students) were between 21 and 23, %5,5'i (11 students) were between 24 and 26, and %1,0 (2 students) were above 27. %40 of the participants (80 student) were studying at the department of Computer Technologies and Information Systems, %19.5 (39 students) from Business Information Management, %10,5 (21 students) from International Trade, % 17 (34 students) from Banking and Insurance and %13 (26 students) were from the department of Customs Management.

According to the analysis done to identify the students' educational background of information technology, it was found that %26,5 (53 students) stated that they had never had any instruction; % 3,0 (6 students) had attended courses outside the school; %11,5 (23 students) had attended courses given by school; %57,5 (115 students) had taken courses related to Information Technologies; and %1,5 (3 students) had taken courses organized by the Ministry. In short, it seems that most of the students have knowledge of information technologies thanks to the classes that take at school.

According to the frequency analysis for how long the students have been using information technologies; %1,0 (2 students) said "I don't use"; %1,0 (2 students) said they have been using information technologies for "less than a year"; %4,0 (8 students) 1-3 years; %20,5 (41 students) 4–6 years; %45,0 (90 students) 7–9 years; and %28,5 (57 students) more than 10 years. According to the frequency analysis for how long the students have been using information technologies for learning purposes during the classes; %1,0 (2 students) said "I don't use"; %4,5 (9 students) said they have been using information technologies for educational purposes "less than a year"; %11,5 (23 students) 1-3 years; %40,5 (81 students) 4–6 years; %34,0 (68 students) 7–9 years; and %8,0 (16 students) more than 10 years.

Table 1. Summary of Information Technologies Literacy Questionnaire Frequency and Percentage Distributions Tables

A)	**Basic Information Technology Skills**	Average	Standard Deviation
1	I am good at running a computer and software.	4,6100	,83148
2	I can carry out computer maintenance.	3,9550	1,20007
3	I can do the basic features which are common in most software.	4,5400	,84378
4	I can do the advanced features easily which are common in most software.	3,9100	1,07596
5	I am good at using word processors, spreadsheets, data base, presentation programs, web design programs and communication programs.	4,2550	,96156
6	I am good at using basic features of word processors.	4,3900	,91217
7	I am good at using programming language and developing software.	2,7800	1,17409
B)	**Analysis and Development Skills**		
8	I am good at advanced document formatting tasks.	3,9050	1,05905
9	I am good at organizing simple data using spreadsheet programs.	4,1150	1,04269
10	I am good at processing data and solving problems using spread sheet programs.	3,3350	1,19158
11	I can use current data bases easily.	3,4200	1,22109
12	I am good at designing and creating my own data base.	3,1150	1,31546
13	I am good at preparing simple slide shows.	4,5350	,87326
14	I am good at designing slides using multimedia elements (audio, video, etc.)	4,3100	,92095
C)	**Information and Internet Skills**		
15	I can create drawings using information technologies easily.	4,2800	,95717
16	I am good at organizing and designing graphics using information technologies.	4,0450	1,12217
17	I am good at surfing the internet and reaching electronic resources.	4,4100	,94145
18	I am good at doing research on the internet and other electronic resources and combining them.	4,3000	,89105
19	I am good at evaluating the usefulness and quality of electronic resources.	4,0300	,96632
20	I can design a web page easily.	3,1450	1,47814
21	I am good at designing and maintaining a web site with multiple pages.	2,7750	1,38345
22	I can communicate with others easily via e-mail and other network devices.	4,5250	,86203
23	I can make use of information technologies presentation and network devices easily to give and publish the results of a research.	3,9350	1,08010
24	I am good at CT devices in order to cooperate with others.	3,9150	1,01138
D)	**Problem Solving Skills**		
25	I am good at finding the information and choosing appropriate devices to solve a problem.	3,9800	,89645
26	I am good at organizing the data I collect or produced to solve a problem.	3,9750	,94277

27	I am good at integrating information.	3,9850	,96407
28	I am good at finding solutions.	3,9500	1,03579

According to the table above, the results driven from the three questions with the highest percentages are as follows:

1. Of 200 students, 148 said "definitely agree" and 40 said "agree" to the statement "I am good at running a computer and software." (Starting the computer, using menus, toolbars, scrollbars and buttons, moving and resizing windows, starting and shutting down applications, etc.). It has the highest average with 4,6100 according to the descriptive statistical analysis, which means that the students seem to be most successful at this item.
2. Of 200 students, 138 said "definitely agree" and 45 said "agree" to the statement "I can do the basic features which are common in most software." (Saving and creating files in a certain format and location; cut, copy, and paste information; making data entries; printing; using printing options; using help services, etc.). It is the second highest average with 4,5400.
3. Of 200 students, 138 said "definitely agree" and 45 said "agree" to the statement "I am good at preparing simple slide shows." (Choosing appropriate slide design, preparing brief and logical presentations, etc.) It is the third highest average with 4,5350.

According to the table above, the results driven from the three questions with the lowest percentages are as follows:

1. Of 200 students, 33 said "definitely agree" and 27 said "agree" to the statement "I am good at designing and maintaining a web site with multiple pages." (Adding interactive elements, loading the pages to the server, etc.). It is the lowest average with 2,7750. It is the statement which most students see themselves insufficient about.
2. Of 200 students, 72 said "not sure" and 14 said " definitely agree" to the statement "I am good at using programming language and developing software." (Visual Basic, Delphi, C, C++, C#, JAVA etc.). These numbers indicate that the students are not that successful, with only 14 students in all, at using programming languages and developing software when we take into account the fact that students who graduate from the departments of computer and computer technologies and information technologies in vocational schools take programming courses during the four years of education.
3. Of 200 students, 34 said "agree" and 41 said " definitely agree" to the statement "I am good at designing and creating my own database." (Choosing the right data types, defining the data areas, searching data, creating complex searches and reports, etc.)

Table 2. Computer Literacy Total Score by Gender and T-test Results for Subdivisions

	Gender	N	Mean	F	Sig.
Total	Male	95	114,97	,74	,001*
	Female	105	106,30		
Basic Information Technology Skills	Male	95	29,70	1,76	,001*
	Female	105	27,29		
Analysis and Development Skills	Male	95	27,64	,016	,031*
	Female	105	25,91		
Information and Internet Skills	Male	95	40,89	,027	,003*
	Female	105	37,97		
Problem Solving Skills	Male	95	16,73	1,09	,000*
	Female	105	15,12		

* p<.05

According to the Computer literacy total score by age in Table 2, it is X = 114,97 points for boys while it is X=106,30 points for girls. Total score for basic information technologies skills subdivision by gender is X=29,70 points for boys and X=27,29 points for girls. Total score for analysis and development skills subdivision by gender is X=27,64 points for boys and X=25,91points for girls. Total score for information and internet skills subdivision by gender is X=40,89 points for boys and X=37,97 points for girls. Total score for problem solving skills

subdivision by gender is X=16,73 points for boys and X=15,12 points for girls. It can be said that the difference is not statistically meaningful for both the questionnaire as a whole and the subdivisions [***P < 0,05**].

Table 3: Computer Literacy Total Score by Age and One Way Variance Analysis Subdivision Results

		N	Mean	F	Sig
Total	18-20 age	68	109,07	1,79	,150
	21-23 age	119	110,60		
	24-26 age	11	111,73		
	27 age and over	2	139,00		
	Total	200	110,43		
Basic Information Technology Skills	18-20 age	68	28,26	1,291	,279
	21-23 age	119	28,35		
	24-26 age	11	29,27		
	27 age and over	2	35,00		
	Total	200	28,44		
Analysis and Development Skills	18-20 age	68	26,24	2,134	,097
	21-23 age	119	26,69		
	24-26 age	11	28,82		
	27 age and over	2	35,00		
	Total	200	26,74		
Information and Internet Skills	18-20 age	68	38,87	1,62	,186
	21-23 age	119	39,62		
	24-26 age	11	37,82		
	27 age and over	2	49,00		
	Total	200	39,36		
Problem Solving Skills	18-20 age	68	15,71	1,21	,307
	21-23 age	119	15,93		
	24-26 age	11	15,82		
	27 age and over	2	20,00		
	Total	200	15,89		

* p>.05

Table 3 shows that the relationship between the age factor and computer literacy total score and total score of the subdivisons is not statistically meaningful p > .05. The one way variance analysis results of computer literacy total score and total score of subdivisions by multiple variables are as follows;

The total mean of computer literacy value is 110,43 and the age factor indicates that as the age increases, so does the computer literacy. When we look at the age distributions by total score, the mean is 109,07 points for ages 18-20, 110,60 points for ages 21-23, 11,73 points for ages 24-26, 139 points for ages 27 and above. The total mean value for basic information technologies subdivision is 28,44. When we look at the age distribution by total score in basic information technologies subdivision; the mean value is 28,26 points for ages 18-20, 28,35 points for ages 21-23, 29,27 points for ages 24-26, and 35 points for ages 27 and above. Total mean value for analysis and development skills subdivision is 26,74 points. When we look at the age distribution by total score in analysis and development skills subdivision; the mean value is 26,24 points for ages 18-20, 26,69 points for ages 21-23, 28,82 points for ages 24-26, and 35 points for ages 27 and above. Total mean value for information and internet skills subdivision is 39,36 points. When we look at the age distribution by total score in information and internet skills subdivision; the mean value is 38,87 points for ages 18-20, 39,62 points for ages 21-23, 37,82 points for ages 24-26, and 49 points for ages 27 and above. Total mean value for problem solving skills subdivision is 15,89 points. When we look at the age distribution by total score in problem solving skills subdivision; the mean value is 15,71 points for ages 18-20, 15,93 points for ages 21-23, 15,82 points for ages 24-26, and 20 points for ages 27 and above. It can be said that the difference is not statistically meaningful for both the questionnaire as a whole and the subdivisions.

Table 4: One Way Variance Analysis Results of Computer Literacy Subdivision and Total Score by Department

		N	Mean	F	Sig.
Total	CTIS	80	120,48		
	BIM	39	117,84		
	IT	21	97,33	30,24	,000*
	BI	34	94,23		
	CM	26	100,07		
	Total	200	110,42		
Basic Information Technology Skills	CTIS	80	31,13		
	BIM	39	29,74		
	IT	21	25,61	21,66	,000*
	BI	34	24,79		
	CM	26	25,23		
	Total	200	28,44		
Analysis and Development Skills	CTIS	80	29,76		
	BIM	39	29,07		
	IT	21	22,76	28,57	,000*
	BI	34	21,91		
	CM	26	23,42		
	Total	200	26,73		
Information and Internet Skills	CTIS	80	42,61		
	BIM	39	41,89		
	IT	21	33,76	19,99	,000*
	BI	34	34,11		
	CM	26	36,92		
	Total	200	39,36		
Problem Solving Skills	CTIS	80	16,97		
	BIM	39	17,12		
	IT	21	15,19	13,09	,000*
	BI	34	13,41		
	CM	26	14,50		
	Total	200	15,89		

* $p<.05$

When we look at Table 4, there is a statistically significant difference $p < .05$ found between the department and computer literacy total score and the total score of subdivisions. According to the multiple variables in Table 4, the variance analysis results for the difference between computer literacy total score and the total score of subdivisions are as follows;

The total mean value for computer literacy is 110,42 points. The mean value for department of Computer Technologies and Information Systems is 120,48 points, 117,84 points for Business Information Management, 97,33 points for International Trade, 94,23 points for the department of Banking and Insurance; and 100,07 points for Customs Management. The total mean value for basic information technologies skills subdivision is 28,44 points. When the department distibutions in basic information technologies skills subdivision by total score are examined, the mean value for CTIS is 31,13 points, 29,74 points for BIM, 25,61 points for IT, 24,79 points for BI, and 25,23 points for CM. The total mean value for analysis and development skills subdivision is 26,73 points. When the department distibutions by total score are considered, the mean value for CTIS is 29,76 points, 29,07 points for BIM, 22,76 points for IT, 21,91 points for BI, and 23,42 points for CM. The total mean value for information and internet skills subdivision is 39,36 points. When the department distibutions by total score are taken into account, the mean value for CTIS is 42,61 points, 41,89 points for BIM, 33,76 points for IT, 34,11 points for BI, and 36,92 points for CM. The total mean value for problem solving skills subdivision is 15,89 points. When the department distibutions by total score are considered, the mean value for CTIS is 16,97 points, 17,12 points for BIM, 15,19 points for IT, 13,41 points for BI, and 14,50 points for CM. It can be said that the difference is statistically meaningful for both the questionnaire as a whole and the subdivisions.

Table 5: One Way Variance Analysis Results of Computer Literacy Subdivisions and Total Score by Computer Technology Educational Background

		N	Mean	F	Sig
Total	I have not attended any courses or classes at school.	53	101,81		
	I have attended (a) course(s) outside school.	6	92,67		
	I have attended courses organized by school.	23	109,22	7,51	,000*
	I have taken the course at school.	115	115,29		
	I have attended (a) course(s) organized by the Ministry.	3	121,00		
	Total	200	110,43		
Basic Information Technology Skills	I have not attended any courses or classes at school.	53	26,17		
	I have attended (a) course(s) outside school.	6	24,00		
	I have attended courses organized by school.	23	27,61	7,27	,000*
	I have taken the course at school.	115	29,81		
	I have attended (a) course(s) organized by the Ministry.	3	31,33		
	Total	200	28,44		
Analysis and Development Skills	I have not attended any courses or classes at school.	53	24,11		
	I have attended (a) course(s) outside school.	6	23,17		
	I have attended courses organized by school.	23	26,35	5,89	,000*
	I have taken the course at school.	115	28,16		
	I have attended (a) course(s) organized by the Ministry.	3	28,67		
	Total	200	26,74		
Information and Internet Skills	I have not attended any courses or classes at school.	53	36,38		
	I have attended (a) course(s) outside school.	6	33,00		
	I have attended courses organized by school.	23	39,17	6,06	,000*
	I have taken the course at school.	115	40,98		
	I have attended (a) course(s) organized by the Ministry.	3	44,00		
	Total	200	39,36		
Problem Solving Skills	I have not attended any courses or classes at school.	53	15,15		
	I have attended (a) course(s) outside school.	6	12,50		
	I have attended courses organized by school.	23	16,09	3,27	,013*
	I have taken the course at school.	115	16,34		
	I have attended (a) course(s) organized by the Ministry.	3	17,00		
	Total	200	15,89		

* p<.05

When we look at Table 5, there is a statistically significant difference $p < .05$ found between the computer technologies educational background and computer literacy total score and the total score of subdivisions. According to the multiple variables in Table 5, the variance analysis results for the difference between computer literacy total score and the total score of subdivisions are as follows;

The total mean value for computer literacy is 110,43 points. When the computer technologies educational background distibutions by total score are considered, the mean value for “I have not attended any courses or classes at school.” is 101,81 points, 92,67 points for “I have attended (a) course(s) outside school.”, 109,22 points for “I have attended courses organized by school.”, 115,29 points for “I have taken the course at school.”, and 121,00 points for “I have attended (a) course(s) organized by the Ministry.”. The total mean value for basic information technologies skills subdivision is 28,44 points. When the computer technologies educational background distibutions in basic computer technologies skills by total score are considered, the mean value for “I have not attended any courses or classes at school.” is 26,17 points, 24,00 points for “I have attended (a) course(s) outside school.”, 27,61 points for “I have attended courses organized by school.”, 29,81 points for “I have taken the course at school.”, and 31,33 points for “I have attended (a) course(s) organized by the Ministry.”. The total mean value for analysis and development skills subdivision is 26,74 points. When the computer technologies educational background distibutions by total score are considered, the mean value for “I have not attended any courses or classes at school.” is 24,11 points, 26,35 points for “I have attended (a) course(s) outside school.”, 26,35 points for “I have attended courses organized by school.”, 28,16 points for “I have taken the course at school.”, and 28,67 points for “I have attended (a) course(s) organized by the Ministry.”. The total mean value for information and internet skills subdivision is 39,36 points. When the computer technologies educational background distibutions by total score are considered, the mean value for “I have not attended any courses or classes at school.” is 36,38 points, 33,00 points for “I have attended (a) course(s) outside school.”, 39,17 points for “I have attended courses organized by school.”, 40,98 points for “I have taken the course at school.”, and 44,00 points for “I have attended (a) course(s) organized by the Ministry.”. The total mean value for problem solving skills subdivision is 15,89 points. When the computer technologies educational background distibutions by total score are considered, the mean value for “I have not

attended any courses or classes at school." is 15,15 points, 12,50 points for "I have attended (a) course(s) outside school.", 16,09 points for "I have attended courses organized by school.", 16,34 points for "I have taken the course at school.", and 17,00 points for "I have attended (a) course(s) organized by the Ministry.". It can be said that the difference is statistically meaningful for both the questionnaire as a whole and the subdivisions.

Table 6: One Way Variance Analysis Results of Computer Literacy Subdivisions and Total Score by How Long the Information Technologies Has Been Used

		N	Mean	F	Sig
Total	Don't use	2	88,50		
	Less than a year	2	79,50		
	1-3 years	8	95,62		
	4-6 years	41	111,21	3,34	,006*
	7-9 years	90	110,42		
	More than 10 years	57	113,78		
	Total	200	110,42		
Basic Information Technology Skills	Don't use	2	26,50		
	Less than a year	2	17,50		
	1-3 years	8	24,00		
	4-6 years	41	28,80	4,2	,001*
	7-9 years	90	28,23		
	More than 10 years	57	29,57		
	Total	200	28,44		
Analysis and Development Skills	Don't use	2	20,00		
	Less than a year	2	19,00		
	1-3 years	8	23,87		
	4-6 years	41	27,00	1,85	,104
	7-9 years	90	27,05		
	More than 10 years	57	26,94		
	Total	200	26,73		
Information and Internet Skills	Don't use	2	31,00		
	Less than a year	2	29,00		
	1-3 years	8	34,25		
	4-6 years	41	39,78	2,85	,016*
	7-9 years	90	39,21		
	More than 10 years	57	40,66		
	Total	200	39,36		
Problem Solving Skills	Don't use	2	11,00		
	Less than a year	2	14,00		
	1-3 years	8	13,50		
	4-6 years	41	15,63	2,74	,020*
	7-9 years	90	15,92		
	More than 10 years	57	16,59		
	Total	200	15,89		

* p<.05

When we look at Table 6, there is a statistically significant difference $p < .05$ found between how long the computer technologies have been used and computer literacy total score and the total score of subdivisions. According to the multiple variables in Table 6, the variance analysis results for the difference between computer literacy total score and the total score of subdivisions are as follows;

The total mean value for computer literacy is 110,42 points. When the extent of time spent using computer technologies distibutions by total score are considered, the mean value for "don't use" is 88,50 points, 79,50 points for "Less than a year", 95,62 points for "1-3 years", 111,21 points for "4-6 years", 110,42 points for "7-9 years", and 113,78 points for "more than 10 years". The total mean value for basic information technologies skills subdivision is 28,44 points. When the extent of time spent using computer technologies distibutions in basic information technologies subdivision by total score are considered, the mean value for "don't use" is 26,50 points, 17,50 points for "Less than a year", 24,00 points for "1-3 years", 28,80 points for "4-6 years", 28,23 points for "7-9 years", and 29,57 points for "more than 10 years". The total mean value for analysis and development skills subdivision is 26,73 points. When the extent of time spent using computer technologies distibutions by total score are considered, the mean value for "don't use" is 20,00 points, 19,00 points for "Less than a year", 23,87 points for "1-3 years", 27,00 points for "4-6 years", 27,05 points for "7-9 years", and 26,94 points for "more than 10 years". The total mean value for information and internet skills subdivision is 39,36 points. When the extent of time spent using computer technologies distibutions by total score are considered, the mean value for "don't use" is 31,00

points, 29,00 points for “Less than a year”, 34,25 points for “1-3 years”, 39,78 points for “4-6 years”, 39,21 points for “7-9 years”, and 40,66 points for “more than 10 years”. The total mean value for problem solving skills subdivision is 15,89 points. When the extent of time spent using computer technologies distibutions by total score are considered, the mean value for “don’t use” is 11,00 points, 14,00 points for “Less than a year”, 13,50 points for “1-3 years”, 15,63 points for “4-6 years”, 15,92 points for “7-9 years”, and 16,59 points for “more than 10 years”. It can be said that the difference is statistically meaningful for both the questionnaire as a whole and the subdivisions.

4. Conclusion

The findings of the study can lead to the results and suggestions as follows; there were 95 male and 105 female students as the participants of the study. The largest population was composed of 119 students who were between 21 and 23. 115 of the students replied “I have taken classes about the use of information technologies.” to the question, “Have you ever received any instruction about information technologies before?”. 90 students told they have been using information technologies for 7-9 years. The two areas where the participants felt themselves most successful are “the basic information technologies skills” and “information and internet skills”. The area where the participants were least successful is “problem solving skills”. One of the points grabbing attention is that there is no significant difference in analysis and development skills according to the one way variance analysis of how long the information technologies have been used by computer literacy. This can be attributed to the fact that analysis and development skills are not gained by experience, but education.

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