

Full Length Research Paper

Influence of the online learning environments and tools on the student achievement and opinions

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Accepted 12 July, 2010

The purpose of this study is to determine the influence of the instructional usage of the online tools on the student success and opinions in Science Education. This study, in which it tried to determine the influence of the instructional usages of the tools on the student achievement and opinions, is designed as an experimental study with the trial model. The working field of the study is composed of the eighth grade students of primary school. The sample of the study is composed of 45 primary school students having computer and internet connection. In this line, the experimental and control groups are formed from the students who are selected randomly among the students between the ranges of 300 - 350 for SBS examination grade range of the academic year of 2008-2009. Some of the findings which are obtained as a result of the study carried out qualitatively and quantitatively are as follows; it was seen that the participants took education in Test-2, that is to say, in blended learning environment between the successes of the Test-1, Test-2 and control groups. It was determined that only the students who took education in the online learning environment had more positive opinions for the online instructional tools.

Key words: Online learning, blog, achievement, moodle.

INTRODUCTION

Not only the rapid development of the technology today and the increased communication on computer and internet in particular caused changes on many areas such as economy, communication, health etc. but also it caused inevitable influences on the education area. The increase in the technological opportunities also diversified the education options of the individuals. The online education systems that are presented as alternative to the disadvantages of the face-to-face education in the traditional class environments between these options have an important place among the education options. The online education environments which provide the learners with the opportunity of individual learning and which require its own learning responsibility have importance in terms of addressing a lot of different learning areas, also because of the benefits of the multi-environment technologies.

In addition to this, the changing life conditions and the

rapidly developing scientific and technological developments necessitate the continuous self-development of the individuals as well. Today's educational systems are in a change and development towards the online environments. The changing living conditions of the individuals require them to realize their learning process during their lifetimes. In this respect, while the online learning causes a change in the educational systems, on the other hand, it presents new opportunities for the individuals in terms of the lifelong learning opportunities. In this direction, it is considerably important to take up and put forward the rapidly changing online tools with regard to the educational opportunities; because the online education supports the implementation of the lifelong learning concept (Huang, 2009; Wasilik and Bolliger, 2009; Artino and Stephens, 2009).

The rapid developments and improvements in the communication technologies brought a new point of view for the distance education as well. Online education internet network is now gaining more and more important and widespread across globe, which could be configured according to the users needs and provides the individuals

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Table 1. Paired groups t-Test results concerning the pretest – posttest points of the achievement test of the test-1 group.

Test-1 group	n	\bar{X}	sd	df	t	Significance level
Pre-test	15	9.07	3.06	14	-2.94*	p < 0.01
Post-test	15	12.27	2.87			

*p < 0.05.

with the advantages such as instant feedback, following their own learning processes. Establishing audiovisual communication with the trainer and with the other students is also one of the reasons of preference of the online learning. On the subject of online education, which takes part among today's educational options and which are gaining more importance in the course of time; it is seen that the studies which are carried out at every level are increasing day by day (Bagozzi, Dholakia, and Klein Pearo, 2007; Lenhart, 2007; Livingstone and Bober, 2004; Clark and Mayer, 2007; Fjermestad, Hiltz and Zhang, 2005; Amrein-Beardsley, Foulger and Toth, 2007; Smith, 2005; Fortune, Shifflett and Sibley, 2006; Olapiriyakul and Scher, 2006).

The mentioned studies; dwelled on the subjects such as the advantages and disadvantages of the online education applications, cost of the online education applications, characteristics of the teachers who provide the online education application and that of the students who take part in the application, the influence of the online education applications on the student success and the perceptions of the teachers and students towards the online education (Hsieh, 2009). The literature attracted the attention of the researcher that there was no sufficient number of studies for the effectiveness of the tools, which are used in the online environments.

In this study, the online education environment was prepared in the coverage of a unit of the Science and Technology course that is studied as a compulsory course in the primary schools. E-mail, video conference, electronic bulletin board and chat are used among the online tools in the online learning environment prepared. This study's, determine the influence of the mentioned online instructional tools on the student achievement and opinions.

METHODS

While the working field of the study is getting formed, the students have SBS examination results between 350 - 400 in the Academic Year of 2007 - 2008 and computer and internet connection at their homes. Personal interviews were performed with the students who have internet connection at their homes for the purpose of determining those that will be selected for the test group in particular. In this respect, a total 45 students were selected: 15 students for the Test 1 group existing in the online learning environment only, 15 students for the Test 2 group existing in the blended learning environment and 15 students for the Control group existing in the face-to-face learning environment. The students who have

internet access at home and sufficient computer skills were determined as the test groups among 45 persons that were considered. The study was carried out for the unit "Structure and Characteristics of the Material" in 36 h, which is the 3rd Unit of the Science and Technology course. In the study, an achievement test is prepared in compliance with the subjects of the unit titled "Structure and Characteristics of the Material" which is a unit of the Science and Technology Course of the Primary School 8th grades. The achievement test, which was prepared from 38 questions, was presented for the opinions and evaluation of the experts and for the purpose of determining the scope validity. A Test which is composed of 20 multiple-choice questions comprising the unit subjects was developed in accordance with the suggestions and critiques obtained. The reliability coefficient of the test is determined as 0.68. Moodle <http://bote-moodle.firat.edu.tr/> was arranged as the online learning environment and <http://aktiffen.blogspot.com/> website is arranged as the blog website. In addition to this, a survey which was composed of 40 items is also developed with 12 open-end items by the researchers in order to determine the student opinions concerning the online learning environment and tools.

FINDINGS AND COMMENTS

In this chapter, the findings that are obtained, as a result of the study, are analyzed in accordance with the related hypotheses.

H₁: There is no meaningful difference between the pre-test and post-test points, which are taken from the achievement test by the test 1 group which takes part in the learning environment and are formed by means of using the online instructional tools.

The results of the paired groups t-test carried out for the purpose of determining whether there is any meaningful difference between the post-test and post-test points taken from the entire achievement test of the Test-1 group are presented in Table 1.

As seen in the Table 1, it was determined that there is a meaningful difference at the level of p< 0.05 between the pre-test and post-test points taken from the entire achievement test by the test-1 group. The pre-test arithmetic average of the Test-1 group is realized as 9.07 and the post-test arithmetic average is realized as 12.27. According to this result, the statistical hypothesis alleged that there is no meaningful difference between the pre-test and post-test points of the test-1 group is refused.

H₂: There is no meaningful difference between the pretest and final test points, taken from the entire success test by the test 2 group which takes part in

Table 2. Paired groups t-test results concerning the pretest – posttest points of the achievement test of the test-2 group.

Test-1 group	n	\bar{X}	sd	df	t	Significance level
Pre-test	15	9.73	2.40	14	-5.81*	p < 0.000
Post-test	15	14.47	2.77			

*p < 0.05.

Table 3. Paired groups t-Test results concerning the pretest – posttest points of the achievement test of the control group.

Control group	n	\bar{X}	sd	df	t	Significance level
Pre-test	15	9.86	3.91	14	-2.31*	p < 0.000
Post-test	15	12.46	3.24			

*p < 0.05.

Table 4. Independent samples t-test results concerning the pre-test points of the achievement test of the experimental groups.

Groups	n	\bar{X}	sd	df	t	Significance level
Test-1	15	9.06	3.06	28	-.664	p > 0.512
Test-2	15	9.73	2.40			

the learning-teaching environments and are formed by means of using the online education tools.

The paired groups t-test is applied for the purpose of determining whether there is any difference between the pretest and final test points, taken from the entire achievement test by the Test 2 group. The results regarding these are presented in Table 2.

As seen in Table 2, it was determined that there is a meaningful difference at the level of $p < 0.05$ between the pre-test and post-test points taken from the entire achievement test by the test-2 group. The pre-test arithmetic average of the Test-2 group was realized as 9.73 and the final test arithmetic average was realized as 14.47. According to this result, the statistical hypothesis alleged that there is no meaningful difference between the pretest and final test points of the test-2 group; as such the hypothesis was refused.

H₃: There is no meaningful difference between the pretest and post-test points, taken from the entire achievement test by the control group on which the traditional method is applied.

The results of the paired groups t-test carried out for the purpose of determining whether there is any meaningful difference between the pretest and final test points taken from the entire achievement test by the control group are presented in Table 3.

According to the Table 3, it was determined that there is a meaningful difference at the level of $p < 0.05$

between the pre-test and post-test points, taken from the entire achievement test by the control group. According to this result, the third hypothesis was refused.

H₄: There is no meaningful difference between the pre-test points, taken from the entire success test by the test 1 and test 2 groups which take part in the learning environments that are formed by means of using the online instructional tools.

Whether there is any meaningful difference between the pre-test points, which the Test-1 and Test-2 groups take from the entire achievement test, was determined by means of the independent groups t-test. The results concerning this are presented in Table 4.

As seen in the Table 4, it was determined that there is no meaningful difference at the level of $p < 0.05$ between the pre-test points taken from the entire achievement test by the Test-1 and Test-2 groups.

H₅: There is no meaningful difference between post-test points taken from the entire achievement test by the test 1 and test 2 groups, which take part in the learning environments, formed by means of using the online instructional tools.

The results of the independent group's t-test which is carried out for the purpose of determining whether there is any meaningful difference between the post-test points, which are taken from the entire achievement test by the Test-1 and Test-2 are presented in Table 5.

Table 5. Independent samples t-Test results concerning the post-test points of the achievement test of the experimental groups.

Groups	n	\bar{X}	sd	df	t	Significance level
Test-1	15	12.26	2.86	28	-2.13*	p < 0.04
Test-2	15	14.46	2.77			

*p < 0.05.

Table 6. One-way Anova results concerning the post-test points of the achievement test of the experimental and control groups.

	df	Sum of squares	Mean square	F	Significance level
Between groups	2	44.400	22.200	2.517	p > 0.09
Within groups	42	370.400	8.819		
Total	44	414.800			

Levene statistic=.240, Sig. = 0 .78. *p < 0.05.

Table 7. One-way Anova results concerning the achievement points of the experimental and control groups.

	df	Sum of squares	Mean square	F	Significance level
Between groups	2	20.844	10.422	1.29	p > 0.286
Within groups	42	339.067	8.073		
Total	44	359.911			

Levene statistic = 0.228, Sig.= 0.797.

According to Table 5, a meaningful difference was found at the level of $p < 0.05$ between the post-test points taken from the entire achievement test by the Test-1 and Test-2 groups. This result shows that students existing in only online (test-1) and blended learning environments (test-2) do not differ from each other's in terms of the post-test points.

H₆: There is no meaningful difference between the post-test points, taken from the entire test by the test 1 and test 2 groups which take part in the learning environments that are formed by means of using the online instructional tools and the control groups which took part in the face-to-face learning environments.

The results of the single way variance analysis that was carried out to determine whether there is any meaningful difference between the averages of the post-test points of all of three groups, are presented in Table 6

As a result of the variance analysis performed, the sixth hypothesis was accepted. However, the interesting point here is that the arithmetic average of the students who took part not only in the online but also in the traditional learning environment ($\bar{X}=14.47$) was higher than the group which took part only in the online learning environment ($\bar{X}=12.26$) and the group which took part in the traditional environment ($\bar{X}=12.46$).

H₇: There is no meaningful difference in terms of the averages of the achievement points between the tests 1 and test 2 groups which take part in the learning environments which are formed by means of using the online instructional tools and the control groups that take part in the traditional learning environments.

In examining the effectiveness of an environment, it could be said that the achievement points will give more differentiating results in terms of reflecting the success level reached by the person. The "achievement points" were found by means of subtracting the pre-test points from the post-test points of the students in all of three groups. Accordingly, the environment was examined by means of the one way variance analysis whether there is a meaningful difference between the achievement point averages of the students in the group. The data concerning this test are given in the Table 7.

When the data obtained are examined, it was seen that the groups do not differentiate in terms of the achievement points averages. The seventh hypothesis alleged that there is no difference between all of three groups in terms of the achievement points accepted when the test and control groups were compared.

However, it is considered useful to take into consideration the achievement points arithmetic averages of the groups. Accordingly, the test-1 group was found as $\bar{X}=3.20$ ($S=2.93$), the test-2 group was found as $\bar{X}=4.86$

Table 8. Independent samples t-Test results of the experimental groups' opinions.

Groups	n	\bar{X}	sd	df	t	Significance level
Test-1	15	143.13	11.98	28	2.09*	P < 0.04
Test-2	15	136.46	2.92			

*p < 0.05.

(S=2.67) and the control group as $\bar{X} = 4.06$ (S = 2.91). When the achievement point's arithmetic average of the groups was compared, it was observed that there is no difference in favor of the students existing not only in the online but also in the traditional learning environment between them.

Opinions of the participants for the effectiveness of the learning environment which is formed by means of the online tools

The analysis of the responses which are given by the participants to the survey which is prepared for the purpose of determining the opinions of the participants for the effectiveness of the online learning environment is thus explained.

Findings and comments concerning the eight hypothesis

H₈: There is no meaningful difference between the opinions of the test 1 and test 2 groups which take part in the learning environments which are formed by means of using the online instructional tools.

As seen in Table 8 there is a meaningful difference in favor of the test 1 between the opinions of the Test 1 and Test 2 groups. It can be useful to examine the items separately (Table 9).

With this article, the participants were requested to state the applications which they think to be most useful for them in the environment that are formed by means of using the online education tools. The participants were requested to select the applications that they think would be useful to them among blogs, Moodle, the works which are performed with e-mail and video conferences in the online instructional applications.

Ninety percent of the participants selected "Blog", 26.6% selected "Moodle", 80% selected "works that were performed with e-mail" and 93.3% selected "video conferences" as most effective.

Opinions of the participants about the blog website

The participations of the participants for the expressions "entertaining", "interesting", "impressive" which take part in the blog website prepared are thus stated. The content

of 25 subjects prepared was marked 39 times for "interesting", 26 times for "entertaining" and f 25 times for "impressive".

Opinions of the participants concerning acquisitions of having lessons in online learning environment

Participant 1-25-28: "Repeating the subjects until full understanding is gotten."

Participant 2: "Repeating the lesson narrations by the teacher in videos with the desired frequency."

Participant 3 and Participant 29: "I could connect a lot of websites relating to the subjects with the links given."

Participant 4-11-13 and 24: "I did not get bored while having lesson because I like spending time in internet."

Participant 5-19-17-21: "Watching the pictures and videos containing a lot of materials, which we could not see in class."

Participant 6-18-12-20: "I realized that I participated in the lesson more and I am active on this subject."

Participant 7: "I think that I acquired more information."

Participant 8-14-15-16: "It enabled me to participate in the lesson more."

Participant 9-22-23: "I think that it increased my success."

Participant 10: "I felt obliged to learn."

Opinions of the Participants concerning considering Online Learning Environment appropriate for them

The researcher requested the participants in personal interviews to state their opinions on the subject whether the online education environment is appropriate for them together with their reasons. The responses of the participants concerning whether they consider these environments appropriate for them are stated:

Participant 11-13-15: "Yes, the online education environment fits me because learning by means of using the technology is more effective."

Participant 1: "I consider so, because I can learn at home by studying alone as well."

Participant 4-7 and 21: "It was nice to follow the lesson whenever I want. In this manner, there is no fear for missing what the teacher said." because the computer does not belong to me."

Participant 3: "It is appropriate for me because I will not miss the lesson by means of participating at home, even

Table 9. Opinions of the participants for the effectiveness of the online learning environments.

Items	Test-1		Test-2	
	\bar{X}	sd	\bar{X}	sd
Making online idea exchange is useful in internalizing the subject	4.66	0.617	4.53	0.51
Positive influence of the repetition on perception in required time and period	4.73	0.45	4.53	0.51
Ensuring easy learning by having lessons in required time and place	4.66	0.48	4.40	0.63
Influence of the access to all of the information and news relating to the subjects in internalizing the subject	4.46	0.63	4.60	0.73
Influence of the news on the bulletin board in adapting the subject to daily life	4.20	0.77	4.26	0.59
Advantage of using the e-mail for the educational purposes	3.66	10.17	4.26	0.70
Influence of having idea exchange in chat rooms on understanding	4.20	0.77	4.40	0.63
Positive influence of taking rapid feedback on following the learning level	4.33	0.89	4.53	0.64
Easiness of presenting the projects and assignments on internet	4.46	0.74	4.00	0.92
Influence of the simultaneous chat on the effective learning process	4.06	0.96	4.20	0.77
Influence of having access to a lot of questions and answers from the website on the success in the examinations	4.66	0.61	4.26	0.79
Effectiveness of internet usage for the educational purposes	4.53	0.83	4.40	0.73
Being easier and more accessible in having education on internet	4.66	0.48	4.53	0.63
Pleasure in having lessons in internet environment	4.53	0.63	4.13	0.74
Increased success with the online education	4.40	0.73	4.06	0.70
Making easier the understanding by having lessons in the class environment	4.06	1.09	2.00	1.13
Being no difference between having lessons in the class environment and in internet	3.26	1.33	1.73	.79
Having more fun in having lessons in class	3.40	1.35	2.00	1.25
I do not think that the education through internet fits me	3.06	1.03	1.66	0.72
Obligation in preparing assignments and projects in computer environment	2.46	1.45	1.86	1.06
I recommend online education	4.13	.91	3.40	1.05
Having individual learning responsibility	4.40	.91	4.46	0.63
Having same degree of influence on the online education environment and the traditional class environment	3.46	1.40	4.66	0.48
Establishing easy communication with the trainer in the online education environment	4.33	0.72	4.26	0.70
Lessons should not be in class, but should be in online education environments	4.13	0.91	4.00	0.84
Compliance of the online education applications with the individual learning speed	4.26	0.88	3.80	0.77
Having sufficient guidance services in the online education environments	4.06	1.03	4.20	0.67
Way of directing the online education environment for research	4.46	0.74	4.46	0.63
Increased self-confidence of the online education environment	4.53	.63	4.40	0.50
Having confidence in the online education received	3.86	1.45	3.60	10.05
I am getting bored in having lessons in the online education environment	3.46	1.35	1.86	0.83
Education on internet is a waste of time	2.60	1.54	1.93	0.96
Online education environment should be formed for the other courses as well	3.93	1.03	4.20	0.77
Teamwork in online education environment	3.00	1.30	4.93	0.25
Forgetting subjects that are studied in the online education environment easily	2.80	1.32	3.93	0.45
Technical problems which are experienced in online education environment	3.13	1.18	3.93	0.79

if I do not go to school that day.”

Participant 2 and 6: “I consider so, because we had a likely environment similar to that in class.”

Participant 5 and 9: “Yes. I can also ask the teacher and my friends the points that I do not understand.”

Participant 10: “No. Because I pay full attention at school,

but I postponed it at home.”

Participant 8-17: “I could miss the video conferences because the computer does not belong to me.”

Participant 14: “It is not appropriate because my family allows me to stay connected for a limited time.”

Participant 12 and 19: “It is appropriate because I like

internet very much.”

Participant 16: “it is appropriate, because it attracts my attention more and it is so colorful.”

Participant 27-23: “it is appropriate, because I could not reach a lot of resources while having lesson and we do not use the computer laboratory every time at school. But we managed to solve questions from a lot of resources while following the lesson on internet.”

Participant 24: “Yes, It is appropriate, because while we did not talk about the subjects with a lot of friends at school, we argued them in this environment.”

Participant 29: “No, I can understand better in class.”

Participant 26: “It is appropriate, because I like the presence of the information in such previous subjects and questions relating to SBS in the appropriate website.”

Participant 25: “It is appropriate, because I could make repetitions for many times.”

Participant 22: “It is appropriate, because I did not only conduct research but also, I had lesson.”

Participant 30: “Yes, it is appropriate, because I can have lessons in a more comfortable environment at home.”

Opinions of the participants concerning that all of the lessons should be studied by means of the online learning tools

It is seen that some of the opinions of the participants on the subject of having all of the lessons by means of using the online education tools in the future are stated as “no” because they have more time with their classmates at school, and some others stated “yes” because they take more pleasure in spending time in the internet. The opinions of the participants who expressed different opinions are as follows:

Participant 1: “Yes. Because there is no rule as seen in school.”

Participant 2-3-4: “Yes. Because, while I mostly hesitate to talk at school, I could express myself more in such environments”

Participant 5: “Yes. Because I participated more actively”

Participant 6: “Yes. I can repeat as much as I want in such environments”

Participant 7: “No. Because I understand better at school”

Participant 8: “Yes. It is very pleasurable.”

Participant 9: “Yes. I would understand better if particularly Social Sciences lesson is taught with videos again.”

Participant 10: “Yes. Because I trust on myself more”

Participant 11: “Yes. Because there will be internet everywhere in the future and schools will be unnecessary.”

Opinions of the participants concerning the problems which are encountered in the online learning environment

It is seen that the students who participate in 18-h

development course given before the application did not encounter any problem. The opinions of the participants who stated different opinions are also stated:

Participant 1: “Having problem in the internet connection”.
Participant 2-3-4-5-6-7-8: “I am troubled in finding the order of the subjects in the blog website.”

Participant 9: “I had difficulty in participating at the video conference because my camera is of low-quality.”

Participant 10: “I got nervous and quitted studying when my internet got disconnected.”

Participant 11: “I had difficulty in sending the assignments as e-mail.”

Participant 12: “Yes, I had some problems resulting from internet.”

Opinions of the participants concerning the effectiveness of the online and face-to-face learning environments

76.6% of the participants did not make this comparison and stated opinions for the availability of both of them.

The opinions of 7 participants who have different opinions are as follows:

Participant 1: “Class environment is better, I can understand clearer there.”

Participant 2: “Class environment is always better, because being in the internet bothers me.”

Participant 3: “Online environment is good because I can learn without being obliged to be at school.”

Participant 4: “Online education environment is more pleasurable.”

Participant 5: “We are more social at school.”

Participant 6: “It is better to establish closer relationships with our friends in the lessons at school.”

Participant 7: “Yes, because I can determine the time.”

Opinions of the participants concerning the differences between the online and face-to-face learning environments

Forty percent of the participants expressed their opinions for the difference between two educational systems as “I can benefit from the online education environment, but I do not have such a chance in class”; and 33.3% expressed that “there is no space limitation of the online education, but the traditional education has school attendance obligations.” The opinions of the other participants are also stated:

Participant 1: “Online education enables us to reach more information.”

Participant 2: “I am more active in the online education.”

Participant 3: “While I was listening to what is taught at school, I am obliged to study on my own in the online education.”

Participant 4: "Online education provided me with more self-confidence."

Participant 5: "Having lesson in the online education is more entertaining than at school."

Participant 6: "I can get more communication with my friends at school."

Participant 7: "Online education environment pushes me to conduct more research."

Participant 8: "I am learning with entertainment in class environment."

Opinions of the participants concerning the influence of the online learning environment on socialization

While 83.3% of the participants expressed that the online education environments affected socialization in a positive way; the different opinions of the other participants are also stated:

Participant 1: "We could make better communication at school."

Participant 2: "Particularly the applications, in which we do message, enabled us to establish closer relationships with our teachers."

Participant 3: "We could spend more time with our friends in class."

Participant 4: "If we have lessons on internet regularly, then it would affect us negatively."

Participant 5: "I had opportunity to meet different people."

Opinions of the participants concerning whether there is any difference between the online and face-to-face learning environments of communication with friends and teachers

While 90% of the participants says that they see no difference in terms of these two education environments; the opinions of the other participants are stated:

Participant 1: "I can establish communication closer at school."

Participant 2: "I was in a closer communication with the teacher in the online education environment."

Participant 3: "We established closer communication in these environments about the lesson subjects with my friends."

Opinions of the participants concerning in which environments the subjects are understood better

Sixty percent of the participants stated that they understand at the same level in both environments; the expressions of the participants who stated different opinions are as follows:

Participant 1: "I think that I learn more effectively in the class environment."

Participant 2: "Because I feel I should study in class, the class environment is more effective."

Participant 3: "I am studying more carefully because I will take examinations at school. Because of this reason, the school environment is more effective."

Participant 4: "I understood easier because I felt more comfortable in the online environment."

Participant 5: "I understood better because I could follow the lessons at any time from home in the online environment."

Participant 6: "I learned easier because I see the visuals and videos of the elements which we could not see at school in particular."

Participant 7: "I understood better in the online education environment because I can repeat as much as I want."

Participant 8: "I understood easier in the online education because education with internet attracted my attention more."

Participant 9: "I can understand better in the online education because I can follow the subject from a lot of resources."

Participant 10: "I understood better in the online education environment because having lessons on internet is more pleasurable."

Participant 11: "I understood better while having lessons on internet because computer attracts my attention."

Participant 12: "Because following the previous questions and their solutions in SBS increased my interest for the lesson, I understood easier in the online education environment."

Conclusion and Suggestions

This study, which tried to determine the influence of the instructional usage of the online tools on the student success and opinions, particularly, all the studies which are carried out inside and outside the country were examined by the researcher using the search engines that are available on internet for the theoretical dimension of the study. After scanning the related literature, it was observed that there is no sufficient number of studies for the instructional usage of the online tools inside the country in particular. A website which is composed of the lesson presentations, activities, videos, images and questions was prepared in order to cover a unit of Science and Technology lesson on Moodle and blog by the researcher in this study which is carried out for the purpose of determining the influence of the instructional usage of the online tools on the student success and opinions. In this study, the different learning environments were formed for test 1, test 2 and control groups. The online learning applications, which are formed by means of using the online education tools that form the basis for the study, were applied to the test 1

and test 2 groups and the traditional method is applied to the control group.

The result of the variance analysis which was performed in the study that was carried out for the purpose of determining the influence of the online instructional tools on the student success and opinions is that, as a noteworthy point, the arithmetic average of the students that take part not only in the online but also in the face-to-face learning environment ($\bar{x}=14.47$) was higher than the group which takes part only in the online learning environment ($\bar{x}=12.26$) and the group which takes part in the traditional environment ($\bar{x}=12.46$). According to this result, we can say that the online instructional applications have a success-increasing characteristic whenever it is used together with the traditional education applications.

As a result of the studies which were carried out for the purpose of determining the opinions of the participants for the effectiveness of the online instructional tools, meaningful results have been obtained only in favor of those that underwent training in the online learning environments. A considerable part of the participants stated that some negative influences appeared such as getting nervous, creating unwillingness in their studies with them as a result of the technical problems which are encountered in the online learning environment. In addition to this, because the students stated that they adapted the school more as a social environment and they are in closer relationships with their friends in the school environment, it makes us think that the social dimension of the online learning environments remains incomplete in comparison with the traditional class environment. It is a fact that knowing the environment is inevitable in stating more positive opinions about this environment by the students who study in the online learning environment. When the opinions of the participants about the online learning environments before the study are taken, stating that they prepare their assignments only on internet indicates that they are not very familiar with the online environments. Based on such findings, we can say that the students do not have sufficient knowledge about the online education environments that were prepared by means of using the online instructional tools.

It is thought that forming the technical substructure of the online learning environment that is prepared for the effectiveness of the studies to be carried out in a better way, will enhance the quality of the online education environments. Based on the research findings, the following suggestions could be made:

1. The positive opinions of the students about computer indicate the importance of the online learning applications among the education options. Taking part in the online applications in education will enhance the formation of an education environment that will address the needs and interests of the students.
2. The audiovisual stimulants, which are presented to the

individuals by the online education applications, have positive influences on the permanent learning process. In order to ensure the permanent learning, it is necessary spread the online education applications that attract the attention of the individuals and address a lots of learning areas.

3. As a result of this study carried out, an increase is seen in the computer usage skills of the students. Today, the advantages provided by the computer, and internet usage skill in terms of benefiting from the computer technologies which is the fastest and easiest method in accessing knowledge, are inevitable. It will necessary to creat awareness about online education applications in order to improve the computer usage skills of the students.

4. The increase in the lesson numbers of the Information technologies and Computer courses, which are studied at schools and making them compulsory courses, is necessary in enabling the students to benefit from the online education applications easily.

5. Taking into consideration the fact that the internet is used as a most widespread communication tool today, the communication between the instructor - student and the student - student are easily ensured in the online learning applications. But only the increase in the group studies performed will be useful in terms of the social developments of the students.

6. The studies that were carried out in the blog website, which is more colorful in the study, attracted the attention of the participants more in comparison with the narrations performed on Moodle. Because of this reason, it should not be ignored that the colorful and movable nature of the online education environments prepared is useful in terms of attracting the attention of the participants.

7. It was determined that the most bothersome subject for the participants in the online education applications is the technical problems encountered. Forming the technical substructure soundly in the online education environments to be prepared, will help to eliminate this negative opinion.

8. It is necessary to make easier the opportunities of having computer and internet connection with the sufficient equipment belonging to them for the participants to benefit from the online learning environments.

9. Achieving a widespread status of the studies to be carried out in a long period of time will help in obtaining healthy results.

10. In addition to this, it will be useful to form the online environments in the other courses, as well as, to ensure a clearer demonstration of the influence of the online environments on the success.

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