Usage of Information Technology in the Programs of Music Teaching, Example of Uludag University Turkey

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Abstract - As a result of the development of the technology in 21st century, information technology is used in music education. This research carried out to assess the usage of information technology by the students who have education in the department of music teaching. The data obtained from the survey method were researched and descriptive method was used to determine the situation of usage of the information technology. The survey, thirty two questions was asked to the chosen university music education students. According to data, positive and negative effects of information technology on education were determined. Suggestions obtained according to the data are the following. For the effective use of technology in education, the necessity of installation of proven information from scientific book to social networks has emerged. Also expert people who will be responsible from technological music education must be educated and these experts should teach by standing during the practices and also teaching different musical notation and sound recording programs as smart boards are recommended. There should be adequate facilities in schools to use technology more often and trainings about the technological devices in schools should be given. To seek proposals for solutions was aimed by determining the things need to be done for more effective use of information technology.

Index Terms - Technology, Music Teaching, Turkey.

I. Introduction

In many countries of the world, courses are carried out with the support of technology at all levels of music education as well as other education areas. Recent advances in music technology offers new possibilities in the basic music fields like music theory, music history, music literature, music education, and performance to teachers as well as music students[1] .

II. Findings

The data obtained from the research group through a survey were analyzed by frequency and percentage calculations.

64% of the sample, 47 of them are women and 35% of the sample is men (see Table I).

TABLE I Gender Distribution of the Research Group

	N	%
Female	49	64, 47
Male	27	35, 53
Total	76	100

The majority of the group participated in the survey are between the ages of 17 to 24 (see Table II).

TABLE II Age Distribution of the Research Group

	N	%
17-24	72	94, 74
25-30	2	2, 63
Over 30	2	2, 63
Total	76	100

16 first grade student, 16 second grade student, 26 third grade students, and 18 fourth grade student attended to the research (see Table III).

TABLE III Grade Distribution of the Research Group

	N	%
1st grade	16	21,05
2nd grade	16	21,05
3rd grade	26	34,21
4th grade	18	23,68
Total	76	100

71 of the students attended to the research have computer at home or where they stay. Accordingly most of the students have computers (see Table IV).

TABLE IV Distribution of the Research Group According to Whether They Have or Don't Have Computers at Home or Where They Stay

	N	%
Yes	71	93,42
No	5	6,58
Total	76	100

44,74% of the students mostly, 28,95% of the students rarely, and 22,37% of the students always use computer (see Table V).

TABLE V Frequency of the Computer Usage of Research Group

	N	%
Always	17	22,37
Mostly	34	44,74
Rare	22	28,95
Total	73	100

Almost all of the 76 students attended to the research have e-mail addresses. The percentage of the students
Who have an e-mail address is 97% (see Table VI).

TABLE VI Distribution of the Research Group According to Whether They Have or Don't Have an e-mail Address.

	N	%
Yes	74	97,37
No	2	2,63
Total	76	100

All the students attended to the research know how to use computer, 34 students know using computer at high level and 42 students know using computer at medium level (see Table VII).

TABLE VII the Answers of the Research Group to the Question 'I know how to use computers'

	N	%
High Level	34	44,74
Medium Level	42	55,26
None	0	-
Total	76	100

The students use internet for musical works at medium level. Besides, 2 students remark that they don't use internet for their musical works (see Table VIII).

TABLE VIII the Answers of the Research Group to the Question 'I use computers and internet for musical work'

	N	%
Completely	32	42,11
Medium Level	42	55,26
None	2	2,63
Total	76	100

The 74,37% of the students completely use computers and internet for preparing homework, 25% of the students use computers and internet for preparing homework at medium level, and 2,63% of the students never use computers and internet for preparing homework (see Table IX).

TABLE IX the Answers of the Research Group to the Question 'I use computers and internet for preparing homework'

	N	%
Completely	55	72,37
Medium Level	19	25
None	2	2,63
Total	76	100

Most of the students completely use computer and internet for listening music, 14 students use computer and internet for listening music at medium level, and 2 students never use computers and internet for listening music (see Table X).

TABLE X the Answers of the Research Group to the Question 'I use computers and internet for listening music'

	N	%
Completely	60	78,95
Medium Level	14	18,42
None	2	2,63
Total	76	100

TABLE XI the Answers of the Research Group to the Question 'I use computers and internet to choose musical piece'

	N	%
Completely	30	39,47
Medium Level	34	44,74
None	12	15,79
Total	76	100

44,74% of the students completely use computer and internet to choose musical piece, 39,47% of the students use computer and internet to choose musical piece at medium level, and 12,79% of the students never use computer and internet to choose musical piece (see Table XI).

TABLE XII the Answers of the Research Group to the Question 'I listen to the musical pieces that I work on computers and internet media'

	N	%
Completely	59	77,63
Medium Level	16	21,05
None	1	1,32
Total	76	100

A great majority of students use the computer and the internet to listen to the musical pieces they work, 16 students use the computer and the internet to listen to the musical pieces they work at medium level, and only one student doesn't use the computer and the internet for this purpose (see Table XII).

TABLE XIII the Answers of the Research Group to the Question 'I use computers and internet for the playbacks of my accompaniments'

	N	%
Completely	23	30,26
Medium Level	27	35,53
None	26	34,21
Total	76	100

The number of the students who use computers and internet for the playbacks of their accompaniments are very close in different levels (see Table XIII).

TABLE XIV the Answers of the Research Group to the Question 'I use computers and internet to search note'

	N	%
Completely	39	51,32
Medium Level	34	44,74
None	3	3,95
Total	76	100

In the findings obtained from the study show almost all of the students use computers and internet to search note (see Table XIV).

TABLE XV the Answers of the Research Group to the Question 'I use computers and internet to download free notes'

	N	%
Completely	39	51,32
Medium Level	31	40,79
None	6	7,89
Total	76	100

Most of the students use computers and internet to download free notes. The total percentage of the students who are using computer for this purpose is 92,11%.(see Table XV).

Most of the students attended to the research don't buy note from internet (see Table XVI).

TABLE XVI the Answers of the Research Group to the Question 'I use computers and internet to buy notes'

	N	%
Completely	12	15,76
Medium Level	14	18,42
None	50	65,79
Total	76	100

TABLE XVII the Answers of the Research Group to the Question 'I use computers and internet to research music culture'

	N	%
Completely	27	35, 53
Medium Level	41	53, 95
None	8	10, 53
Total	76	100

Most of the students use computers and internet to research music culture. In spite of this, 8 students don't use computers and internet to research music culture.

TABLE XVIII the Answers of the Research Group to the Question 'I use computers and internet to get information about musical terms'

	N	%
Completely	30	39,47
Medium Level	39	51,32
None	7	9,21
Total	76	100

39,47% of the students completely use computers and internet to get information about musical terms, 51,32% of the students use computers and internet to get information about musical terms at medium level, and 9,21% of the students never use computers and internet to get information about musical terms (see Table XVIII).

TABLE XIX the Answers of the Research Group to the Question 'I use computers and internet to research instrument literature'

	N	%
Completely	26	34,21
Medium Level	42	55,26
None	8	10,53
Total	76	100

Most of the student use computers and internet to research instrument literature. There are 8 students who don't use internet for this purpose (see Table XIX).

TABLE XX the Answers of the Research Group to the Question 'I use Finale notation program'

	N	%
Completely	28	36,84
Medium Level	23	30,26
None	25	32,90
Total	76	100

There is information about the student usage of most commonly used music notation programs in Table 20. According to this, 28 students completely use Finale software, 23 students use Finale software at medium level, and 25 students never use Finale software (see Table XX).

TABLE XXI the Answers of the Research Group to the Question 'I use Sibelius notation program'

	N	%
Completely	21	27,63
Medium Level	23	30,26
None	32	42,11
Total	76	100

In the findings obtained from the study, it is seen that 21 students completely use Sibelius notation program, 23 students use Sibelius notation program at medium level, and 32 students never use Sibelius notation program. When examining the Table 20 and Table 21, it is determined that Finale program is used by more students than Sibelius program.

In addition to this, these are the answers of research group to the question 'What are the other notation programs that they use except Finale and Sibelius?'

- Guitar Pro, Score Writer (see Table XXI).

TABLE XXII the Answers of the Research Group to the Question 'I use sound recording program'

	N	%
Completely	7	9,21
Medium Level	16	21,05
None	53	69,74
Total	76	100

Research group were asked whether they use sound recording programs and it was determined that most of them don't use sound recording programs. There are 7 students who completely use sound recording programs and 16 students who usr sound recording programs at medium level. Besides, 53 students never use sound recording programs (see Table XXII).

These are the sound recording programs that research group use:

- Cubase, Reason, Acid Pro, Adobe, Band in a Box, Windows Phone Recorder, Guitar Pro

TABLE XXIII the Answers of the Research Group to the Question 'I use computers and internet to record the pieces that I work for listening to myself'

	N	%
Completely	13	17,11
Medium Level	24	31,58
None	39	51,32
Total	76	100

13 students completely use computers and internet to record the pieces they work for listening to themselves, 24 students use computers and internet to record the pieces they work for listening to themselves at medium level (see Table X XIII).

TABLE XXIV the Answers of the Research Group to the Question 'I think technological developments have positive effects on music education?'

	N	%
Yes	61	80,26
No	2	2,63
Partially	13	17,11
Total	76	100

Most of the students think technological developments have positive effects on music education (see Table XXIV).

TABLE XXV the Answers of the Research Group to the Question 'I think technological developments have negative effects on music education?'

	N	%
Yes	7	9,21
No	42	55,26
Partially	27	35,53
Total	76	100

In parallel with Table XXIV, most of the students in research group don't think technological developments have negative effects on music education. In addition to that, 35,53% of the students partially think technological developments have negative effects on music education (see T able XXV).

TABLE XXVI the Answers of the Research Group to the Question 'I think technology has positive effects on my personal musical development'

	N	%
Don't agree	6	7,89
Indecisive	15	19,74
Agree	55	72,37
Total	76	100

72,37% of the research group agree the idea; technology has positive effects on their personal musical development, 19,74% of the research group indecisive about the idea; technology has positive effects on their personal musical development, and 7,89% of the research group disagree the idea; technology has positive effects on their personal musical development (see Table XXVI).

TABLE XXVII the Answers of the Research Group to the Question 'I think technology provides convenience in preparing homework'.

	N	%
Don't agree	2	2,63
Indecisive	4	5,26
Agree	70	92,11
Total	76	100

Almost all of the students agree the idea; technology provides convenience in preparing homework. 4 students are indecisive and 2 students disagree with this idea (see Table X XVII).

TABLE XXVIII the Answers of the Research Group to the Question 'I think technology provides convenience about knowing pieces, composers, and musicians'

	N	%
Don't agree	3	3,95
Indecisive	3	3,95
Agree	70	92,11
Total	76	100

Almost the entire research group agrees the idea; technology provides convenience about knowing pieces, composers, and musicians, 3,95% indecisive, and 3,95% disagree with the idea (see Table XVIII).

TABLE XXIX the Answers of the Research Group to the Question 'I think technology is waste of time'

	N	%
Don't agree	59	77,63
Indecisive	12	15,79
Agree	5	6,58
Total	76	100

77,63% of the research group think technology is not waste of time, 15,79% of the research group are indecisive, and 6,58% of the research group think technology is waste of time (see Table XXIX).

TABLE XXX the Answers of the Research Group to the Question 'I think technology provides accessibility to unnecessary information'

	N	%
Don't agree	17	22,37
Indecisive	22	28,95
Agree	37	48,68
Total	76	100

37 students think technology provides accessibility to unnecessary information, 22 students are indecisive, and 17 students disagree with the idea (see Table XXX).

TABLE XXXI the Answers of the Research Group to the Question 'I doubt the accuracy of the information reached with technology'

	N	%
Don't agree	20	26,32
Indecisive	46	60,53
Agree	10	13,16
Total	76	100

Most of the research group are indecisive about the idea; the accuracy of the information reached with technology is doubtful, 26,32% of them disagree and 13,16% agree the idea. (see Table XXXI).

TABLE XXXII the Answers of the Research Group to the Question 'I think education process hinders because of spending more time with technology'

	N	%
Don't agree	26	34,21
Indecisive	28	36,84
Agree	22	28,95
Total	76	100

In the findings obtained from the study, it is seen that 26 students disagree the idea; education process hinders because of spending more time with technology, 28 students are indecisive and, 22 students agree the idea; education process hinders because of spending more time with technology.

Also students were asked what can be done to use the pos itive effects of the technology more widely at the end of the su rvey (see Table XXXII).

III. Conclusion and Suggestions

The aim of using technology in music education is not put aside the communication between teacher and student or demolish the classic education system, it is to use advantages

offered by technology as promoter. Traditional music education, has become more efficient and dimensional with the use of technology, new technologies have transformed the music learning environment into a center of technological learning [1].

The results obtained are briefly summarized as follows. Most of the students have a computer in their environments and most of them use computers. Although the vast majority of students have e-mail, it is seen that 3% of the students still don't have an e-mail. It is also seen that students use internet for musical works at medium level. In addition to that 2 students claim they don't use internet for musical works. According to the findings obtained from the study, the necessity of the development of effective internet usage come forward. While most of the students use internet for preparing homework, listening to music, researching music culture, musical terms, and instrument literature, knowing musicians, composers, and pieces, choosing notes, and downloading free notes, it is rarely used for buying notes. The students who use computers and internet for the playbacks of their accompaniments are very close in different levels. Approximately 60% of the students use Finale program at high and medium level. According to the data, it is determined that the Finale program was used by more people than Sibelius program. In addition to this, research group gave the Guitar Pro, Score Writer answers when we asked what the other notation programs that they use except Finale and Sibelius are. The sound recording programs, which are used by 30% of research group who use sound recording programs, are Cubase, Reason, Acid Pro, Adobe, Band in a Box, Windows Phone Recorder, and Guitar Pro. Students think that technology has a positive contribution to music education. But also it revealed that they think there might have negative effects like time loss and providing convenience to reach unnecessary and deceptive information. Suggestions obtained according to the data are the following. For the effective use of technology in education, the necessity of installation of proven information from scientific book to social networks has emerged. Also expert people who will be responsible from technological music education must be educated and these experts should teach by standing during the practices and also teaching different musical notation and sound recording programs as smart boards are recommended. There should be adequate facilities in schools to use technology more often and trainings about the technological devices in schools should be given.

As a result, students should be educated with right materials by skilled people in information technologies and effective usage in proper environmental conditions should be extended for the effective use of information technologies and to increase the positive effects of it.

References

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