A RESEARCH ON SMART BOARD USE QUALITIES OF MUSIC TEACHER CANDIDATES

Murat YAKUT,
Music Teacher, 70th Year Republic Middle School

Assist. Prof. Ali Korkut ULUDAĞ,
Ataturk University, Kazım Karabekir Education Faculty

Abstract:

Nowadays, technology is moving at a dizzying pace. This change affects the field of education as well as every field. In today's world of science and technology, traditional teaching methods are inadequate in transferring knowledge. As with any field, innovations in communication technology are also effective in education. The educational environment is rapidly changing with these technologies. It is inevitable that the educational tools and equipment should be renewed together with these innovations in technology to meet the requirements of the day. The purpose of this study is to measure the knowledge about computer technology, how much it can benefit from computers in active duty experiences and the knowledge about musical software designed for computer, in preparing course materials for smart teacher to use music teacher candidates. The results were obtained by applied analysis method in SPSS 20 program and the details are explained in related parts.

Key words: *Smart (Interactive) Board, Educational Technologies, Music Teacher Candidates*.

** This paper has been presented at 4th International Conference on Humanities and Educational Research held in Istanbul, Turkey on December 8-10, 2017.

Introduction

The level of development of contemporary societies is often measured by the science and technology they produce. This can only be achieved through education. In this sense, the rapid developments in communication technologies and technologies, and the prevalence in practice in recent years, are closely related to the existence of creative producers and consumers raised by advanced education systems (Karasar, 2004). The developments in technology have also affected the field of education and training. So that traditional teaching methods and techniques are now inadequate; traditional methods leave room for technology-based applications. In this sense, the teaching and learning materials used in schools are changing and progressing in parallel with technological innovations. In addition to improving the overall productivity of students and teachers in general-purpose applications of technology-based applications, visual and audial materials together with written materials are also part of the course to raise efficiency. The use of smart board in schools has become widespread in many countries around the world. This

prevalence remains important, although educational staff sometimes take on significant responsibility to purchase and effectively use interactive board technology.

In recent years, in order to determine the attitudes of the students towards the technological equipments in our country, various studies have been carried out and importance is given to the establishment of the necessary education policies and strategies regarding the more rational use of investments (Yavuz and Coşkun, 2008). One of the new innovations is the project known as FATİH (Kayaduman, Sırakaya and Seferoglu, 2011), which is publicized in 2010 and is carried out in cooperation with the Ministry of National Education and the Ministry of Transport in cooperation with the Movement for the Improvement of Opportunities and Technological Improvement. In parallel with the above-mentioned large-scale projects, which are expected to make the learning-teaching process more effective with the opportunities provided by the technology, MEB started the FATIH Project with pilot application at the beginning of 2012 (Pamuk, Çakır, Ergun, Yilmaz and Ayas, 2013). The main objective of the FATIH project is to: (1) ensure equality of opportunity in education and training, regardless of geography; (2) develop and improve technology used in schools; and (3) support the learning of students by placing ICT tools at the center of the learning environment. The project consists of five basic components:

- Providing hardware and software infrastructure,
- Providing and managing educational e-content,
- effective use of IT in curricula,
- In-service training of teachers and
- Conscious, secure, manageable and measurable use of IT

Within the scope of the project, approximately 700.000 teachers and 17.000.000 students (MEB, 2012b) will be receiving tablet computers; By providing interactive board, internet network infrastructure, multifunction printer and document camera with LCD panel of 570,000 classrooms in 42.000 schools; e-content needs are targeted to be completed (MEB, 2012c). These studies, which the Ministry of National Education has made to improve the educational environment in schools and to benefit more from the technology education, have increased the teachers' role in education. Because, as the technology develops, the use of this technology in education and the teacher element to be used will always be front-line.

Since the FATIH project has not yet been completed and progresses in partial tender, the focus of the project is on the smart borders (Banoğlu, Madenoğlu, Uysal and Dede, 2014). When we look at the statistics regarding the current state of the schools in our country, it is understood that there are computer classes in the vicinity of all the schools and 96% of them have internet connection, 1500 of them are computer assisted science laboratories and 18,500 are using authorship software programs. Within 3 years with FATIH project, it is stated that more than 500 classrooms in 40 thousand schools will be equipped with 614 thousand 364 notebook computers and projection equipment and 38 thousand 688 multipurpose photocopying machines and smart boards. (Kayaduman, Sırakaya ve Seferoglu, 2011).

Scope of the Study

Teacher candidates who are prepared to participate in the education community in our country should have knowledge about the use of technology before they come to the classroom which will positively affect the education process. This study was presented as a pilot study on

three demographic variables related to the smart board use qualifications of music teacher candidates. In the next phase, both the sample group and the sub-dimensions will be expanded and the master's thesis will be prepared at the Atatürk University, Institute of Educational Sciences. One of the aims of the study is to shed light on pilot studies for the master thesis study. In this context, within the scope of the study, a questionnaire was made to the students of Erzurum Atatürk University, Faculty of Education, 3rd and 4th year students of music education department (music teacher candidates). The questionnaire was prepared by the researcher, adapted from Yalçınkaya's (2013) frequency grid using interactive board.

Method of Research and Results of Implementation

As a result of the research, the data obtained through the questionnaires were analyzed with the SPSS 20 program. The results are as follows:

Table 1-A Group Statistics

	D1	N	Mean	Std. Deviation	Std. Error Mean
SORT	Women	41	3.8176	.53658	.09202
	Men	21	4.1086	.49097	.09278

Table 1 –B Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
SORT	Equal variances assumed	.179	.674	-2.207	60	.031	-.29092	.13182	-.55461	-.02724
	Equal variances not assumed			-2.226	59.298	.030	-.29092	.13068	-.55239	-.02946

In Tables 1A and 1B, there was no significant change in gender-related T-test scores between women and men's smart board use qualifications. Although the average level of men proficiency is high, this is not significant.

Group Statistics

	D2	N	Mean	Std. Deviation	Std. Error Mean
SORT	18-22	50	3.9968	.48291	.06829
	23+	12	3.7500	.69369	.20025

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
SORT	Equal variances assumed	3.032	.087	1.454	60	.151	.24680	.16969	-.09263	.58623
	Equal variances not assumed			1.166	13.666	.263	.24680	.21157	-.20803	.70163

In Table 2, there was no significant change in age groups and smart board use qualifications when looking at the age-related T-test scores. Although the 18-22 age group has a high level of proficiency, this is not significant.

Table 3 - A Group Statistics

	D3	N	Mean	Std. Deviation	Std. Error Mean
SORT	4th Grade	42	4.0419	.44419	.06854
	3rd Grade	20	3.7540	.65280	.14597

Table 3 – B Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
SORT	Equal variances assumed	5.055	.028	2.040	60	.046	.28790	.14111	.00564	.57016
	Equal variances not assumed			1.785	27.678	.085	.28790	.16126	-.04260	.61841

Table 3 shows that there is a significant difference between the qualifications of smart boards; 4th grades are seen themselves more qualified then 3rd grades according to the T- Test scores.

On the other hand, when looking at the results of frequency analysis, it would be possible to make a generalization on sample expressions.

S4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3.0	9	14.5	14.5	14.5
	4.0	28	45.2	45.2	59.7
	5.0	25	40.3	40.3	100.0
	Total	62	100.0	100.0	

Q4. Given the answers to the phrase "I believe I have the ability to use an interactive board to meet the needs", 85% of the participants claimed that they are able to use the smart board. While the proportion of those who can use smart board is satisfactory, the proportion of those who do not have the ability to use the smart board (15%) is not negligible.

S10

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.0	1	1.6	1.6	1.6
	2.0	7	11.3	11.3	12.9
	3.0	14	22.6	22.6	35.5
	4.0	24	38.7	38.7	74.2
	5.0	16	25.8	25.8	100.0
	Total	62	100.0	100.0	

Q10. Given the answers to the phrase "I can make the desired changes on the prepared notes, maps, diagrams, shapes, photographs etc., I can make the desired changes with the drawing feature", 64% of them can use these features while the remaining 36% needs to improve their skills.

S17

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.0	2	3.2	3.2	3.2
	3.0	23	37.1	37.1	40.3
	4.0	22	35.5	35.5	75.8
	5.0	15	24.2	24.2	100.0
	Total	62	100.0	100.0	

Q.17 Given the answers to the phrase "I believe I have succeeded in the lessons I used using interactive wood," 59% of the participants thought positive contributions to the interactive board lessons, while the remaining 41% took an

insensitive or disagreeing position. Nowadays, as information technology is spreading rapidly at every stage of education, this situation can be a working topic in itself.

S20

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.0	1	1.6	1.6	1.6
	2.0	5	8.1	8.1	9.7
	3.0	12	19.4	19.4	29.0
	4.0	27	43.5	43.5	72.6
	5.0	17	27.4	27.4	100.0
	Total	62	100.0	100.0	

S21

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.0	5	8.1	8.1	8.1
	3.0	20	32.3	32.3	40.3
	4.0	22	35.5	35.5	75.8
	5.0	15	24.2	24.2	100.0
	Total	62	100.0	100.0	

Given the statement for Q.20 "I feel good enough to use note-writing programs to make the interactive board more efficient in music lessons." And for Q21 "I feel good enough to prepare audio files for use on the smart board" it has appeared that the participants who already stated that they are eligible for using smart boards, actually not able to use all detail, there is around 15-20% differences between the first group mention and last one.

Conclusion

In recent years, in order to determine the attitudes of the students towards the technological tools, various studies have been carried out in our country and importance is given to the establishment of necessary education policies and strategies regarding the rational use of investments. In this sense, within the scope of the FATIH Project, the interaction boards placed in the schools contribute to the technology-based processing of the lessons, while at the same time providing teachers with familiarity with information technology. Within the scope of this research, a questionnaire was applied to Erzurum Atatürk University, Faculty of Education, Music Teacher Education Department 3rd and 4th year students because they are music teacher candidates. The results of the research showed that even though the teacher candidates can use the interlaced board, there are teacher candidates who do not have enough (or do not feel enough) enough to use them. From this point of view, teaching smart board as part of the

curriculum at higher education institutions will enable more efficient use of investments made at the macro level. In addition, raising the effectiveness of interactive use of the board may cause teachers not to question the benefits of the interactive board. Although many studies have been done about it, it is recommended that it be a focus point for various studies in the future as it has not yet become a training culture established in our country.

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