

*Full Length Research Paper*

# The evaluation of synchronous distance ear training compared to the traditional ear training

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It is clearly seen that distance education, spreading all over the world recently, is increasingly used in music education process. That the method brings great flexibility to the teaching-learning process destroys the limits depending on time and space and it can easily reach wide audiences and so on outstanding features are the main factors behind its choice. The applicability of this important method for the Ear Training course was seen to be a current topic worth investigating in the present study. For this reason, it was aimed to determine the applicability of the simultaneous distance education method in the context of Ear Training course. The experimental method (pre-test-post-test) was preferred and an experimental group consisting of 14 students and a control group consisting of 14 students were formed and the groups' ability to hear multi-voice (interval and chord) and to write dictation (rhythm and melody) was compared. The data achieved in the experimental setting was interpreted with the independent t test according to the  $p < .05$  level and as a result of the research, it was stated that there was no significant difference between experimental group students who had synchronous distance Ear Training lessons and control group students who had traditional Ear Training lessons. In addition, it was observed that the experimental group students and control group students could easily communicate with each other and that the experimental group students had a great motivation for the lesson. The research results were discussed with a variety of scientific research results and various proposals were made. The proposals made according to the research results were about the importance of the method's applicability in the context of different courses and its contribution to the music teacher training process in Turkey.

**Key words:** Synchronous distance Ear Training, Traditional Ear Training, Music Education.

## INTRODUCTION

Computers and the Internet have become an integral part of our life as a result of technological developments in our age. Today, it is seen that especially students use computers and the Internet effectively to chat, to purchase (books, magazines, and etc.), to reach the different information and, to store, to process and to

share the information. While the students carried the information in notebooks, books and bags recently, they have started to use devices such as flash memories, hard drives, and smart phones and so on widely. Drastic changes related to the education and that information can be stored, transferred, copied, processed, published

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affect and change the students and teachers' tasks and responsibilities in the teaching-learning process. More clearly, in the technology-assisted education and training process the students are no longer passive recipients but they are the individuals who reach and bring the information and explain and discuss it in the classroom. In other words, they are the ones who take an active part in educational activities. The teacher of the knowledge age is not the one who makes the student memorize the information but is the self-renewing and open-minded and s/he presents what s/he knows through the guidance, shows the student how to reach the information s/he needs and has the knowledge and the technical equipment of the day (Leventoğlu, 2004, p.1).

The above technological, individual, social and educational developments necessitate the structural and systematic renewal of the institutions. In order to respond to the needs and expectations, institutions change educational activities and processes and put various teaching materials, applications and programs into service.

Among these programs and practices, distance education is an effective teaching method that largely or completely clears off the constraints occurring due to time and space and it is flexible enough to be configured according to the needs of the applied groups. This method which is used in various grades of education for different purposes across the globe is rapidly becoming popular because it is an important way to solve the problem of education deficiency due to rapid population growth and it largely supports the life-long learning process and so on.

Today, different definitions are made for this method in which computers and the Internet are predominantly used. According to İşman (2011, p.15), the distance education is a training and education method which enables opportunity and freedom of self-learning and is more flexible than traditional training and more applicable to the individual's conditions. According to Uşun (2006, p.7-8), distance education is an application of a systematic educational technology that can be done with written and printed materials, visual or auditory means and in which teachers and students are in physically separate places in large part of the educational activities and which enables the receivers to have individual flexibility and independence from the aspects of 'academic age, purpose, time, place and method' and so on

When descriptions are analyzed, it is seen that distance education is a method that meets the individual needs and differences, contributes a lot to the life-long learning process, and largely eliminates the time, place and national limits and etc. of the traditional education. İşman (2011, p.15) states that the purpose of the distance education is to eliminate the limitations in education partially or completely and to carry the training opportunities to a wider audience. Uşun (2006, p. 19, 20)

specifies the benefits of distance education as below:

1. It can meet the requirements of the contemporary student's changing, advancing and life-long independent learning and make significant contributions to the national development of the developed and developing countries. That the individuals are responsible for their own learning increases their ability to reach the information and decide on their own and make them more enterprising,
2. In the process of teaching and learning, it provides flexibility and diversity in some aspects such as learning age, teaching objectives, teaching and learning environment, methods and techniques and so on. The supply of system services (excluding start-up costs) is not expensive. It offers easily- updated assessment and evaluation tools and methods. It offers a wide variety of learning environments (written and printed, audio-visual, multi- media and interactive),
3. Integrating with traditional educational processes, it contributes to the enrichment of these processes. It can be used in the teaching of a wide variety and different types of disciplines and formal and informal educational levels. It can be effectively used in the education of individuals in need of special education.

Because of the mentioned positive attributes and contributions to the educational process, the distance education method is effectively used at the universities in Turkey and in the world. For instance, the distance education is used at numerous overseas universities such as the Indra Gandhi National University, Islamic Azad University, Universitas Terbuk, State University of New York, University of Buenos Aires, National Autonomous University of Mexico, National University of Cordoba and so on and it is used at Anadolu University, University of Ankara, Atatürk University, Atılım University, Çukurova University, Karadeniz Technical University, Kırıkkale University, Mehmet Akif Ersoy University, Harran University and etc. in Turkey (İşman, 2011, p.70-92, 129-131). Approximately eighty universities use the distance education in various programs and practices (Universities Providing Distance Education, 2014). However, there is no university using distance music education program in our country; distance music education practices are used in different programs in a number of universities abroad.

For instance, a certificate is given to those who are successful at the music education program which is carried out synchronously and asynchronously at Berklee University (Berklee University, 2014); online conducting training at master degree is given at Colorado State University (Colorado State University, 2014), online general music education and instrument training at master degree are provided at Kent University (Kent University, 2014), online music education is provided for music educators at master degree at Boston University (Boston University, 2014). As seen, distance education is an effective method used for various programs and

purposes by the universities. In addition, various scientific studies related to the effectiveness of distance music education have been carried out.

For example, as a result of Shoemaker and Stam's (2010) experimental research on distance piano education, it was stated that the teacher in the American continent could have synchronous and asynchronous piano lessons with the students in African continent with the help of midi technology, image program and internet connection, and the students could be successful and also that method was quite similar to the traditional piano lessons. In Nakahira et al.'s asynchronous experimental study (2011), it was stated that the e-material prepared to develop the students' simultaneously singing and piano playing skills was applied to 15 students and as a result, 11 students out of 15 were found to be successful in general.

In Karahan's experimental study (2014), the effects of the traditional piano teaching method and synchronous distance piano teaching method on the students' playing the piano performances were compared and no significant difference was found between the groups that two separate methods were applied (10 students in experimental group and 10 students in control group).

Researches on the distance education method and practices at the overseas universities show that the method can be successfully applied. In addition, it can be said that distance education and educational technology have been used effectively in the process of traditional teaching-learning process both in the past and present, and based on the researches made so far it can be said that these practices have important contributions to the process of music education.

Kim (2013, p.424) stated that with digital technology-based education, students did not have teacher-centred and rote learning education as in traditional education. Further, as a result of the experimental study done with 16 students, it was concluded that students' motivations and perception of music increased. Partti (2014) stated in his study that the use of digital music production in the lessons during the music education process enabled students to forge a link between course materials and their own environments more easily and that their learning processes gained a more effective and permanent qualification in the technological learning environment.

When past studies were analyzed, educational technology had important contributions to the process of education even with the technological means of 10 years ago. Levendođlu (2004, p.3) stated that the effective use of computer and online systems in music would accelerate students' learning process as a strengthening and complementary factor, would enable them to have rich materials in the area they want to thrive, and would make them have an advantageous learning experience in many aspects. Tecimer (2006, p.8) also stated that music educators used the Internet, television, video, video camera, DVD, CD, CD-ROM, electronic pianos,

computers, computer software programs (software), MIDI and so on in their classes in order to improve students as well as their own knowledge and skills, to enhance their performances, to improve their singing or playing skills and to increase their creativity and motivations. On the other hand, Koç (2004, p.5) stated that learning process was getting shorter due to evolving technological means and audio-visual elements which supported the computer-based music learning and producing and he added that computer-supported music education software became the most important assistant in the issues constituting the basis of music. Levendođlu (2004, p.2) indicated that in traditional education, students should reach the teacher while in the online music education, the music educator reached students with technological tools. Arapgirliođlu (2003, p.164) emphasized the importance of distance education in the process of globalization of education by stating that only a certain class and number of students could take advantage of a good qualified teacher; however, students all over the world could benefit from interactive music software for various purposes.

Considering all the above-mentioned researches, it can be said that educational technology and especially the distance education applications are effectively used in the traditional teaching-learning process. Distance music education enables students to have education in a freer and more flexible environment by removing the place and time restrictions of traditional education. Also it provides easy access to printed, written, audio, visual and audio sources and most importantly it enables students' learning and teaching process with a large number of interactive applications that can be done on a global scale. For example, some online sites test student's knowledge with multiple-choice tests on the issues such as music genres and forms, instruments and composers, etc. Moreover, the software for instrument training and especially ear training (Arapgirliođlu, 2003, p.163-164) has been used by music teacher candidates so far. Absolute Pitch, Chord ID, Ear Master & Ear Master School, Harmonic Hearing (1998), Music Theory, Pitch ID, Sight Reading Challenge (Version 1.40), Sight-Singing Trainer 2.0, Tune-it II: (ECS) and etc. are important examples for ear-training. There are a large number of distance education applications especially for ear-training.

In the light of the given information, it is seen that educational technologies and especially distance education applications are becoming common methods in traditional teaching-learning process and especially software and applications for ear training are frequently preferred.

## EAR TRAINING EDUCATION

Hearing, one of the five senses of human beings, is a gateway to perceive and understand our environment

and our world which are surrounded with sounds. Musical audience can be described as a skill enabling perception, recognition, knowing, reminiscence, identification, decoding and analysis of musical totality, elements, equipment, properties and connections that can be perceived with sense of hearing (Uçan, 2005, p.19). Since it contains all these features, ear training education is the foundation of the teaching-learning process in each type of the general and aspired and professional music education.

Ear training is an essential course that is compulsory for all students during six semesters in Music Education Program. This course which can be also called Musical Audince, Ear Training and Solfege has a great importance for the evaluation of musical thinking and musical talent (Karkın, 2004, p.2). In addition, the students gain the theoretical and practical basic knowledge and skills about the formation of sound, basic characteristics of sound, hearing system and sound perception, mono and poly sound hearing, music font, meter, tempo, rhythm, tone, chord, scale, tune, solfege and so on (Özgür, 2006; Şengül, 2006; Hacıev, 2007) within the scope of this course. Especially, it is possible to understand if students comprehend melody, harmony and rhythm, or in other words, the units of the musical work in the dictation process and to evaluate their ability to use the relationship between symbol and sound which is the essence of music education (Arapgirlioğlu, 2012, p.63). Therefore, students' achievement level of Ear Training course is an important sign of their musical knowledge and skills and their professional success.

Students' Ear Training achievement levels are determined with oral or written examinations. Written examinations mainly consist of topics such as tone (interval), chord, rhythm, and melody dictation. In the light of the given information, it is seen that Ear Training is one of the most important courses in the Music Education Program and that technologies such as computers and the Internet and also a variety of distance education applications are used in the lessons and students' extracurricular studies in order to enliven the courses. However, as a result of the literature review, a study that determines the applicability of synchronous distance education method for Ear Training courses was found. Due to the method working via instant data transfer, it is also possible to create e-course setting quite similar to the traditional Ear Training courses (Shoemaker, 2010). In addition it was foreseen that the use of such an important and up to date teaching method in the context of Ear Training course could make an important contribution in the teaching- learning process.

If the method is successfully applied, the students who skip the classes or are unable to continue their education for various reasons can continue their educational process successfully. It can be possible to teach more students with a wide variety of applications that can be done at national or international distance. Further, in our country, it is a known fact that music departments need

professional teachers to conduct Ear Training lessons and due to the lack of academic staff, these lessons are carried out by teaching staffs whose professional fields are not music theory. It may be possible that professional teachers can conduct these lessons through distance education method if the method is successfully applied in the context of Ear Training course.

For the various reasons mentioned above, the present research is to determine the applicability of the synchronous distance education, one of the most important methods increasingly becoming widespread nowadays, in Ear Training courses and to ascertain its effect on the students' achievement levels. Therefore, students' success levels in traditional Ear Training teaching and those in synchronous distance Ear Training teaching were compared and the problem statement is as follows.

### **Problem statement**

Are there any differences between success levels of the students who have traditional Ear Training education and those who have synchronous distance Ear Training education?

### **Sub-problems**

1- Is there a difference between the success levels at the tone and chord exam of the students who take traditional Ear Training education and of those who take synchronous distance Ear Training education?

2- Is there a difference between the success levels in the rhythm dictation and melody dictation exam of the students, taking traditional Ear Training teaching, and those of the students taking synchronous distance Ear Training education?

### **Aim**

The aim of the present study is to determine the applicability of the synchronous distance education within the scope of Ear Training course and to determine whether the courses done with this method affect the success levels of the students. .

### **METHOD**

Since the Ear Training lesson is conducted both theoretically and practically in Music Education Programs, the survey data were regarded necessary to be achieved in an experimental setting. With the experimental setting, the research results were provided to reflect the fact exactly. Lessons and practice made with groups in the experimental setting and experimental phase were described in detail. In the study in which experimental model was preferred, it was determined to what extent the simultaneous distance Ear Training lessons affected the students' success levels compared

with the traditional Ear Training lessons. At the experimental phase of the study, pre-test and post-test model was preferred to compare the grades obtained from the experimental and control groups.

### Technical specifications of the experimental setting

At the end of the trial process and preliminary research related to electronic media, internet speed was determined to be 20 Mbps and more. Various video and audio conversation programs were tried and Skype™ video call and multi-conference program was preferred, because it had the clearest video and audio transmission. The technical and electronic features are detailed below.

Internet, Connection type: ADSL (Asymmetric Digital Subscriber Line) Connection Speed: 20 Mbps, *Computer (1-2)*: Microsoft Windows XP Professional Version 2011, 1,83 Ghz- 2,00 GB RAM, *Projection (1-2)*: Brightness 3000 Ansilumen, Resolution 1024x768, Image format 4:3, Image Program: Skype™ Video Calling and Multi-Conference Program, *Webcam (1-2)*: Full HD (High Definition) 1080p image capture. (The most 1920x1080 pixels), HD video call (1280x780 Pixel) Carl Zeiss Optic, Built-in microphone with RightSound™, USB 2.0

### The formation of the groups and experimental phase

Experimental and control groups were chosen from the students studying 1<sup>st</sup> grade at Harran University, Faculty of Education, Education of Fine Arts Department, Music Education Program. Before the experimental stage, a total of 40 students were asked whether they wrote rhythm and melody dictation at 5/8 meter previously, and 35 students stated that they did not. These students were studied with in the experimental stage. In the experimental phase of the research, two separate exams and tests were conducted. First exam questions consisted of tone and chords and the second exam had questions about rhythm and melody dictation.

At the pre-test phase of the first test, 12 questions about tone and chord were played to the 35 students with piano twice in the traditional learning environment and the students were asked to write the names of tones and chords. At the end of the pre-test, it was found that there were 28 students giving wrong answers mainly to the questions of major 7 and minor 7 tones and minor -5 and major + 5 chords. The experimental and control groups, equivalent to each other, were formed in regard to the correct answers about tones and chords of those 28 students. Thus, the experimental group was formed from 14 students and also control group was formed from 14 students. All students were equivalent to each other in terms of success and failure. The control group had traditional Ear Training lesson and the experimental group had synchronous distance Ear Training lessons for the tones and chords topics which both groups failed. Thus, both groups had lessons with the same teacher and with exactly same content and at the same duration. The description of the course is as follows.

Firstly, tone subject was taught. Tones were written on the staved board and played with the piano and numerous examples were given. Tone questions were asked in theory and practice aurally to the students of both groups individually and it was observed that the students of both groups gave correct answers in near level. Then, chord topic was taught. Chords were written on the staved board and then structural features were described and played with the piano. Numerous examples were given. Chord questions were asked in theory and practice to the students of both groups individually and the students of both groups were observed to give correct answers in near level. After 50 min, the course was

completed and post-test phase started.

The order of the 12 questions of tone and chord that were asked in the pre-test was changed and the same questions were asked in post-test again. While the control group had the traditional method exam, the experimental group had synchronous examination. In other words, both groups had the examination with the same content and at the same duration.

The questions of tone and chord were asked twice. Then, an assessment of the difference or equivalence of the success levels of the control and experimental groups at the post-test was made. After determining the success levels of tone and chord, the phase of determining the success levels of rhythm and melody dictation started.

In the second exam, a pre-test consisting of rhythm and melody dictation questions was given to the 28 students in the traditional education environment in order to determine the success levels of rhythm and melody dictation of the students. The process of the examination is described below.

Rhythm dictation consisting of 8 meters in total was played in groups composed of two meters (1-2, 3-4, 5-6, 7-8) with two repeats. One minute passed between the first play and replay. With this method, the question of the rhythm dictation, consisting of 8 meters, was completed and question of melody dictation started.

The question of melody dictation started with giving the A note to the students and playing cadence and scale of the melody to be played. Melody dictation consisting of 8 meters in total was played in groups composed of two meters (1-2, 3-4, 5-6, 7-8) with two repeats. One minute passed between the first play and replay. Finally, the whole melody dictation was played by giving 8 meters A note at once and nearly two minutes later pre-test examination consisting of rhythm and melody dictation questions was completed. As a result of the assessment, an experiment group consisting of 14 students and a control group consisting of 14 students were formed. Those students were equal to each other in terms of their success levels of rhythm and melody dictation. Then the course phase started.

5/8 (2+3) meters were taught in the course. Firstly, the students were taught the 5/8 meter theoretically for 25 min; some samples of 5/8 meters were written from simple to difficult on the staved board and the Bonas of these examples were sung with their beats. Then, the students were made to sing the Bona of the examples written on the board with their beats individually. It is found that the students of both groups could sing those. At this stage, the students were made to write melody dictation while the teacher played the rhythm and melody dictation, with the 5/8 meter at the elementary level, for 25 min. Post-test, consisting of rhythm and melody dictation with 8 meters and written with 5/8 meters, was given to the students at the end of the 50-min lesson. The process of the examination is the same as the pre-test phase.

### Collection and evaluation of data

Research data were obtained through literature review and experimental setting. Students' success levels were determined with the pre-test and post-test examinations. In the processing of the data, SPSS 11.5 program was used. The results obtained with *t*-test were read according to  $p < .05$  level. Performance Evaluation Scale is given in Table 1.

Each of the 12 tone questions was 4.16 points and the total was 50 points. Each of 12 chord questions was 4.16 points and total was 50 points. As a result, the total of tone and chord questions was 100 points (Table 2).

Rhythm dictation consisted of 8 meters and each meter was 6, 25 points, so 8 meters were 50 points. Melody dictation consisted of 8 meters and each meter was 6.25 points and so the total of 8 meters was 50 points. The total of rhythm and melody dictation questions was 100 points.

**Table 1.** Evaluation scale of the tone and chord examination.

Questions	Each tone and chord	Number of questions	Total
Tone questions	4.16 points	12	50 points
Chord questions	4.16 points	12	50 points
Overall Total			100 points

**Table 2.** Evaluation scale of the rhythm and melody dictation examination.

Questions	Each meter	Number of meter	Total
Rhythm dictation	6.25 points	8	50 points
Melody dictation	6.25 points	8	50 points
Overall Total			100 points

**Table 3.** Skewness - Kurtosis values of the pre-test- post-test scores and the significance level results of Shapiro-Wilk Test.

		Shapiro-Wilk (S-W)			
Pre-test scores		N	Skewness	Kurtosis	P
Interval-chord	Experimental	14	.18	-.52	.80
	Control	14	-.47	-.87	.26
Rhythm and melody dictation	Experimental	14	-.69	-1.27	.013*
	Control	14	-.01	-1.79	.07
Post-test scores		N	Skewness	Kurtosis	P
Interval-chord	Experimental	14	.14	.47	.96
	Control	14	-.51	-.54	.57
Rhythm and melody dictation	Experimental	14	.19	-1.53	.16
	Control	14	.02	-.85	.34

\*p&lt;.05.

## FINDINGS AND COMMENTS

Findings related to the problem statement of the research were presented as the tone and chord pre-test equivalence, post-test intergroup comparison, rhythm and melody dictation pre-test equivalence, post-test intergroup comparison.

When SW test results in Table 3 were examined, it was found that deviations from normality were seen only in the experimental group students' Rhythm- Melody dictation scores. But when the skewness – kurtosis values were considered, it could be accepted as normal when it was in the range of  $\pm 1$  (Büyüköztürk, 2007). Proceeding from these findings, it was decided to use the implementation of related and unrelated samples *t* – test among the parametric tests.

When Table 4 was examined, there was no significant difference between experimental and control groups in terms of their success level at interval-chord exam [ $t = -.11, p > .05$ ] and rhythm –melody dictation exam [ $t = -.03, p > .05$ ]. Moreover, taking into account the arithmetic mean of the values between the groups, a very close distribution was observed and therefore experimental and control group students were determined to be equal in terms of their

achievement levels according to the pre-test exam results of interval - chord and rhythm-melody dictation.

Referring to Table 5, no significant difference was found between the experimental and control group students' in-group pre-test and post-test interval-chord scores [ $t = -.09, p > .05$ ;  $t = .77, p > .05$ ] and the scores were found to be close to each other.

Examining Table 6, no significant difference was found between the pre-test and post-test scores in the experimental group students' Rhythm-Melody dictation exam success level [ $t = -.81, p > .05$ ]. When we looked at the results of the control group students' analysis, similar findings were emerged. Students' Rhythm-Melody dictation exam showed no significant difference between the pre-test and post-test achievement level.

Examining Table 7, there was no significant difference between experimental and control group in terms of the exam success level at the range of [ $t = -.38, p > .05$ ]. When values of arithmetic mean were examined, the scores were seen to be very close to each other.

As seen in Table 8, there was no significant difference between the experimental and control groups in terms of rhythm –melody exam success level [ $t = .04, p > .05$ ]. The scores of the groups

**Table 4.** *t*-test of results experimental and control groups' intervals and chord pre-test equivalence situation.

Interval-chord	N	$\bar{x}$	ss	Sd	F	T	P
Experimental	14	11.57	3.37	26	.00	-.11	.91
Control	14	11.71	3.27				
Rhythm and melody dictation	N	$\bar{x}$	ss	Sd	F	T	P
Experimental	14	63.00	37.95	26	1.42	-.03	.97
Control	14	63.43	29.23				

**Table 5.** *t*-test results of experimental and control groups' interval-chord pre-test, post-test success points.

Experimental group	N	$\bar{x}$	ss	Sd	T	p
Pre-test	14	11.57	3.37	13	-.09	.93
Post test		11.64	3.54			
Control group	N	$\bar{x}$	ss	Sd	T	p
Pre-test	14	11.71	3.27	13	-.77	.46
Post test		12.07	2.40			

**Table 6.** *t*-test results of experimental and control group's rhythm-melody dictation pre-test, post-test success points.

Experimental group	N	$\bar{x}$	ss	Sd	T	p
Pre-test	14	63.00	37.95	13	.81	.43
Post -test		57.14	29.75			
Control group	N	$\bar{x}$	ss	sd	T	p
Pre-test	14	63.43	29.23	13	.92	.38
Post-test		56.71	27.40			

**Table 7.** *t*-test results of experimental and control groups' interval-chord post-test success points.

Interval-chord	N	$\bar{x}$	ss	sd	F	T	p
Experimental	14	11.64	3.54	26	1.26	-.38	.71
Control	14	12.07	2.40				

**Table 8.** *t*-test results of experimental and control groups' rhythm-melody dictation post-test success points.

Rhythm and melody dictation	N	$\bar{x}$	ss	sd	F	T	P
Experimental	14	57.14	29.75	26	.47	.04	.97
Control	14	56.71	27.40				

were found to be quite similar.

## RESULTS

In conclusion, it was stated that there was no significant

difference between the experimental group students given synchronous distance Ear Training education and control group students given traditional Ear Training education in terms of their success levels in post-test interval and chord examination according to the [ $t = -.38$ ,  $p > .05$ ] level and post-test rhythm and melody dictation

examination according to the [ $t = .04, p > .05$ ] level. Based on the results achieved within the scope of the study, it was concluded that simultaneous distance Ear Training method was as successful and effective as traditional Ear Training method.

The experimental group students had a great interest in synchronous distance Ear Training and this interest can be said to be an important factor for the students' success. Another essential factor in achieving successful results was that simultaneous distance Ear Training lessons were constructed in a very similar nature to the traditional Ear Training lessons.

It was clearly observed that during the lesson at the experimental phase, students of both groups asked the teacher and each other questions, and there was a good communication between two groups. With the synchronous distance education method, the lesson could be performed at the same time with the experimental and control group students and the students of those could communicate with the teacher and with each other as if they had had lesson at the same class. Those important facilities provided by the method and the course setting constructed in a quite similar manner to the traditional Ear Training course setting ensured the students feel comfortable and made a significant contribution to their success. In this context, it was observed that simultaneous distance Ear Training lesson could be constructed in a very similar nature to that of traditional Ear Training and it had positive contributions to students' success. The observations and the accomplished results are consistent with each other.

## DISCUSSION

Distance education is a fundamental teaching method used throughout the world with its superior features such as its ability to provide a wide variety of written, printed, audio-visual, multi-media and interactive teaching-learning environment, to fulfil the continuous lifelong independent learning needs, to bring flexibility to the teaching-learning process and to be used in teaching different types of disciplines at the formal and non-formal education levels. However, when the institutions for music teachers training in our country were examined, it was seen that most of the courses were carried out in the traditional classroom environment and no practice was done for distance education method. Within this context, the application of the synchronous distance method for the Ear Training, the basic lesson of music teacher training process, and its impacts on the student's success levels were determined. As a result of the study, it was determined that synchronous distance Ear Training method was as successful as the traditional Ear Training method and those two methods improved the students' development level equally. In addition, it was observed that synchronous distance Ear Training method had very similar features with the traditional Ear Training method.

Synchronous distance education method has been researched for different music lessons and successful results have been obtained. For example, as a result of Shoemaker and Stam's (2010) research, it was found out that piano lessons could be successfully done with synchronous and asynchronous distance education method and the courses were very similar to the traditional lessons. In their researches, Nakahira et al. (2011) used the e-material, prepared to improve the students' skills of piano playing and singing simultaneously, applying asynchronous distance education method and it was concluded that students were generally successful. As a result of Karahan's (2014) experimental research, it was found out that synchronous distance piano education method was as successful as the traditional piano education method and those two separate methods improved students' piano performances equally. Depending on the various researches, it can be said that synchronous and asynchronous methods could be successfully used in various music education courses.

As a result of the research, it was determined that synchronous distance education method could be successfully used in the Ear Training lessons and this result was supported with the results of the researches mentioned above. Despite the many positive features of synchronous distance education method, there is a basic negative feature of it. In order to be used efficiently, the method needs 20 and more Mbps continuous Internet speed. In case of permanent discontinuation and long term decline of Internet speed, the method may turn out to be impracticable. However, 100 or even 180 Mbps Internet service nearly clears the negative side of the method.

## Suggestions

Since synchronous distance Ear Training is a successful teaching method, it is necessary to research to what extent this method can be used in group courses such as Music Culture, Harmony-Counterpoint- Accompaniment, Choir, Orchestra in Music Education Program.

It is considered that distance music education which is becoming common all over the world can contribute a lot to the music education process in our country. It can enable flexibility, life-long learning, and removing of time and space constraints partially or completely and so on in the education process when it is used in each of general, aspired and professional music trainings in our country. In addition, even today there are major shortcomings in meeting the physical needs of educational institutions and in supporting enough teaching staff in our rapidly developing country. Distance education can be seen as a remarkable solution to meet these needs.

## Conflict of Interests

The author has not declared any conflict of interest.

