Eurasian Academy of Sciences
Eurasian Education & Literature Journal (International Refereed & Indexed)
Eurasian Academy of Sciences
Eurasian Education & Literature Journal
2019 Volume:11 S: 8 -22
Published Online September 2019 (http://edulit.eurasianacademy.org)
ISSN: 2149-3510

THE IMPORTANCE OF INSTRUMENT RECOGNITION IN MELODIC DICTATION: AN EXPERIMENTAL COMPARISON FOR VIOLIN, FLUTE AND QANUN[1]

İsmail SINIR*

* Asst. Prof. Ph.D., Mugla Sitki Kocman University Faculty of Education, Fine Arts Education Department Music Education Program

ABSTRACT

Dictation as a subfield of musical writing is an important pillar of music education. It is possible to say that writing musical dictation, which can be considered a study of defining voices at musical level, has a long history in the curricula of music education institutions. In the first dictation studies at the Paris Conservatory, while musical passages were initially dictated by students hearing vocals, the organ was later used instead. Since, the main instrument in this study has become the piano. Experimental studies related to the use of other instruments instead of piano within the scope of dictation studies show that, if sufficient education is provided, the use of any instrument in dictation studies is possible with no negative effect on student's performance. This study was designed with the assumption that when a music student writes dictation with his or her individual instrument, it is more advantageous than the use of other instruments. However, said student can successfully dictate on unfamiliar instruments if necessary training is given. The study has a weak experimental design as it was completed with pre-test/post-test and no control group. The study group consisted of 10 students studying in their 2nd and 3rd years in the Spring 2018-2019 academic year in the Department of Music Education at Mugla Sitki Kocman University Faculty of Education. In selection of the study group, the 2nd and 3rd year student grades received in the Musical Hearing, Reading and Writing course the previous semester were taken into consideration. In the pre-test, post-test and educational work, dictations were asked via violin, flute and qanun and the questions were selected from the literature of these instruments. After the pre-test, training was conducted for 4 weeks, one hour per week for each instrument, and the post-test questions were asked. As a result of the study, it was seen that the students were more successful in dictations written with violin in the pre-test study than with other instruments. However, this difference was closed in the post-test after the training study with students demonstrating success with the violin as well as with flute and qanun.

Keywords: Musical Dictation, Violin, Flute, Qanun, Musical Experiments

TEKSESLİ DİKTE ÇALIŞMALARINDA ÇALGIYI TANIMANIN ÖNEMİ: KEMAN, FLÜT VE KANUN ÇALGILARI İLE DENEYSEL BİR KARŞILAŞTIRMA

ÖZET

Müziksel yazmanın bir alt alanı olarak dikte çalışması, müzik eğitiminin önemli bir ayağıdır. Müziksel diktenin, müzik eğitimi veren kurumların müfredatlarında köklü bir geçmişe sahip olduğunu söylemek mümkündür. Paris konservatuvarındaki ilk dikte çalışmalarında öğrencilerin vokalle seslendirdikleri müziksel pasajların dikte edilirken, sonra vokal yerine org kullanılmaya başlanmıştır. Daha sonra ise bu çalışmanın temel çalgısı piyano olagelmiştir. Bu çalışma, bir müzik öğrencisinin bireysel çalgısı ile dikte yazarken, diğer çalgılara

[1] This article is an extended version of a paper which submitted in 5th International Music and Dance Congress in 22-26 July 2019, Nevsehir, Turkey.

göre daha avantajlı olacağı, ancak gerekli çalışmalar yapıldığı takdirde tanımadığı enstrümanlarla da başarılı bir şekilde dikte yazabileceği varsayımıyla kurgulanmıştır. Çalışma, desen olarak zayıf deneysel bir desende olup, öntest-sontest kontrol grupsuz bir şekilde tamamlanmıştır. Çalışma grubu, MSKÜ Eğitim Fakültesi Güzel Sanatlar Eğitimi Bölümü Müzik Eğitimi Anabilim Dalında 2018-2019 bahar yarıyılında 2. ve 3. sınıflarda öğrenim gören ve bireysel çalgıları keman olan 10 öğrenciden oluşmaktadır. Çalışma grubu seçilirken, 2. ve 3. Sınıfta öğrenim gören öğrencilerin bir önceki yarıyılda MİOY dersinden aldıkları başarı notları dikkate alınmış, sınıf ortalamalarının bir standart sapma puanı altında ve üstünde kalan öğrenciler çalışma dışında bırakılmış ve bu aralıktaki keman öğrencileri çalışma grubu olarak belirlenmiştir. Öntest, sontest ve eğitim çalışmasında dikteler keman, flüt ve kanun ile sorulmuş, sorular bu çalgılara ait literatürden seçilmiştir. Öntest sonrasında 4 hafta boyunca, her çalgı için hafta da birer saat olacak şekilde eğitim çalışması gerçekleştirilmiş, ardından yapılan sontest soruları sorulmuştur. Çalışma sonucunda, öntest çalışmasında öğrencilerin keman ile yazdıkları diktelerde diğerlerine göre daha başarılı oldukları, ancak eğitim çalışmasının ardından yapılan sontestte bu farkın kapandığı, öğrencilerin flüt ve kanun ile kemana yakın bir başarı elde ettikleri görülmüştür.

Anahtar Kelimeler: Müziksel Dikte, Keman, Flüt, Kanun, Müziksel Deneyim

INTRODUCTION

Music is a philosophical, aesthetic and artistic form expressing human being by the human being with all the meanings, functions, differences and riches one contains (Akyurek, 2019: 2052). Music education can be defined as a multi-layered development process consisting of many sub-areas. One of these subfields is musical dictation training. Dictation education, which is also defined as a field of musical writing, is the process of putting sounds into writing with musical elements. Dictation education is one of the most important music theory studies at music education institutions in Turkey; likewise, the ability to write musical dictation is an important component of musicianship. Therefore, improving the dictation writing skills of music students is a major goal of music education programs.

When the curriculums of music education institutions in Turkey are examined, dictation-writing studies are found in courses such as Musical Hearing Reading and Writing, Western Music Theory and Practice and so on. The basic instrument in dictation is the piano. It is known that in dictation studies generally performed with piano, students are asked to dictate mostly from books written for dictation studies. During application, written dictation questions are asked in two dimensions based on a specific repetition and the students are asked to note the tunes played during this period. At this point, it is necessary to continue by asking the question: “What is the likelihood that this dictation work within the boundaries of the school will meet the musicians in their lives after graduation?” This question can also be phrased as follows: “Will the melodies to be dictated in real life be heard on piano?” In a previous study on these issues by the researcher, the aforementioned questions were examined and it was concluded that there was no significant change in the success of the students with sufficient pre-study dictation of violin and that there was no statistically significant difference between piano and violin questions (Sinir, 2017: 536).

The main question of this study is whether it is advantageous for the student to be familiar with the instrument used when dictating. In other words, will students be more successful when they listen to their individual instruments? Conversely, does writing dictation with technically unrecognized instruments affect their success negatively? One could quickly assume that familiarity with a sound source would be an advantage in dictation. However, as seen in researcher’s previous study, this result can be changed with necessary technical information and training activities. This is the impetus for the present study. In this context, different instruments such as violin, flute and qanun are explored. The aim of this selection is to reduce the likelihood that students will be able to recognize the dictation instrument. The

ability to eliminate through training the potential disadvantages of dictation writing with instruments from different music cultures through training will also be tested. As Gunay stated, music culture should be considered as a sum of knowledge, skills, traditional rules and behaviors and knowledge gained about music, etc. beside the general culture of people (2006: 99). In this context, this study will also focus on understanding the relation between students' success and cultural factors as a result of their individual cultural backgrounds.

1. Literature Research

A literature search in the field of musical hearing and reading generates many studies related to this subject. While publications are often concerned with drawing a conceptual framework and they are also occasionally concerned with bringing innovation and a different perspective to the field. In the preface of his book on musical dictation for example, Ozcelik defines musical dictation as the way an individual's memory or exposure to music sources and instruments influences the musical sounds heard during dictation in terms of the elements of musical writing (2010: 6). Elhankizi defines musical dictation as determining the time signature, the correct pitches, rhythmic patterns or duration values of the melody's notes (Elhankizi, 2015: v). Ozgur and Aydogan, on the other hand, consider expression of sounds with the elements of musical writing as "musical writing" and evaluate musical writing in two different dimensions:

a. Writing audible sounds (dictating),

b. Writing musical ideas and drafts (creating) (Ozgur and Aydogan, 2015: 5).

Lavignac considers the dictation of music as the perfect complement to solfeggio" (Lavignac, 1939: 24). Gazimihal considers the notation of performed music as the main method of ear training (Gazimihal, 1961: 163).

According to Holmes, solfeggio and dictation are two basic elements of aural education (cited from Holmes, Ozaltunoglu, 2011: 62-63). For Apaydinli, musical dictation is a study that can best complete musical sight reading (Apaydinli, 2006: 15). On the other hand, Klonoski sees it as evidence or an end result. From this perspective, dictation exercises test three different competences:

a. Ability to remember the played melody,

b. Ability to understand the relationship between the played intervals and rhythms and other parts of the exercise,

c. The ability to note the melody heard (cited from Klonoski, Sisley, 2008: 23).

According to Hedges, the aim of music dictation is to educate students to transcribe melodies, sounds and rhythms played (mostly with the piano) (Hedges, 1999: 38). Weale states that, writing dictation is an important part of musical talent programs and an important component in the development of musicianship (cited from Weale, Ozaltunoglu, 2011: 63). Yildirim's review of, experts in this field says that dictation is an important basis for all musical practices of the student. According to experts, with the teaching of dictation, the student is provided the ability to recognize and use theoretical and tonal structures for the duration of his/her professional life (Yildirim, 2012: 51-52).

Hedges further states that, "dictation education has been implemented in the curriculum of the Paris conservatory since 1871. In the first years of the classroom studies of the Paris conservatory's dictation curriculum (1871-1903), the dictations were continuously performed with female vocals and the students were asked to note them. Towards the end of the period

of Theodore Dubois, who had served as director from 1896 to 1905, this practice was changed and organ was used in dictation studies" (Hedges, 1999: 49-50).

In Klonoski's words, "in traditional dictation, melodies are played isolated from elements such as harmony and rhythm. The aim of this sturdy is to improve students' listening skills step by step. In other words, the students are first made to hear the intervals, then hear the chords and then the chord walks. These studies are partly due to the fact that the dictation of the real compositions is quite complicated for the students, especially in order to dictate them in the early days of their education" (2006: 54).

The Aim of Study

According to Weale, "a well-educated musician should be able to sing a particular melody in the form of solfege, be able to perform an existing note with his voice, and transcribe a melody to musical note (cited from Weale, Ozaltunoglu, 2011: 63). As one of the ultimate goals of dictation practice is to make students well-prepared for any dictation, exercises can include any instrument or sound source (Sinir, 2017: 533).

Ulku Ozgur lists five important aims of dictation education in music education. Two objectives in particular listed by Ozgur are in close relation with the questions of this study. One of these aims is that music students gain the ability to dictate the music they hear or sing, their own or someone else's work, and the other is to help them gain the ability to conduct compilation study in residence city (cited from Ozgur, Ozgul, 2016: 2).

In addition, in the event of a possible compilation or notation study, what musical instrument will be heard by music students has to be considered in a separate dimension. This study focuses on this issue. For example, suppose that in a dictation work, the sound source is the violin. In this case, would it be advantageous for the violin students? Or would it be a disadvantage for qanun students? In fact, it is possible to encounter many versions of this example in any dictation exercise. In fact, the musicians are expected to be well-prepared for all of these possibilities. In this context, asking the question will clarify the purpose of the study: Is every music student ready for such a dictation practice? If this question is answered in a prejudiced way, it is possible to foresee that most music students in Turkey lack this kind of practice. This study assumes that this prejudice cannot go beyond an axiom; therefore, the study is designed to test this hypothesis.

Research Questions

The aim of this study is to compare the success of the dictates written by the violin and the dictates written by different instruments such as flute and qanun. However, to evaluate the achievement levels of the students based on quantitative data only would be incomplete. So a "Student Information and Opinion Form" was given to students and they asked to complete it. Using the questions in this form, researcher tried to understand the past musical experiences of the students and the study data were evaluated qualitatively in light of this information. Thusly, the problems of the study are listed separately both quantitatively and qualitatively.

It is possible to examine the research questions developed on the quantitative dimensions of the study under three main headings. The quantitative problems of the research could be listed as:

1. Is there a significant difference between the pre-test & post-test violin, pre-test & post-test flute and pre-test & post-test dictation scores of the students whose individual instrument is violin?
2. Is there a significant difference between the pre-test violin, pre-test flute and pre-test qanun dictation scores of the students whose individual instrument is violin?
3. Is there a significant difference between the posttest violin, posttest flute and posttest qanun dictation scores of the students whose individual instrument is violin?

The qualitative aspects of the study are:

1. Is there a relationship between the achievement level of the students and the type of high school they graduated from?
2. Is there a relationship between the achievement level of the students and their favorite music genres?
3. Is there a relationship between the achievement level of the students and their music industry experiences?
4. Is there a relationship between the achievement level of the students and their families' relationship to music?
5. What are the opinions of the students about their success level in this study?

Working Group

The study group was selected according to the purposeful sampling model (Yildirim and Simsek, 2013: 135). The study group consisted of 10 violin students in the 2nd and 3rd year of the Department of Music Education, Faculty of Education, Mugla Sitki Kocman University (MSKU) in the spring semester of 2018-2019. In this study, 1st year violin students were excluded because they took the Musical Hearing, Solfeggio and Writing (MIOY) course for the first time. 4th year students were excluded because they no longer take this course. The basis for the determination of the study group was the passing grades of the students from MIOY III and MIOY V courses in the previous semester. The students whose scores were above the standard deviation and below the standard deviation who also play violin were chosen for the study.

Selection of the Dictation Pieces

Pre-test and post-test dictation questions were selected from the literature of the instruments. The aim is to test the ability to dictate a musical passage from the literature. In order to check whether the dictation questions to be used in the study were appropriate for the purpose of the study, three experts were asked for their opinions.

The compositions used as a dictation material are listed below[1]:

-For violin dictation; F. Seitz, Schüler-Concert, Op. 12, No. 3, Allegro Risoluto, 13-21 measures.

-For flute dictation; P. L. Bergamo, Sonate II for Flute, Allegro, 1-5 measures.

-For qanun dictation; G. Baktagir, Nihavend Pesrev, 2nd Movement (2nd Hane), 1-8 measures.

Method of The Study

[1] All compositions' tempos are fixed to 60 bpm while performing.

The study is a weak experimental study as it was designed with a pre-test/post-test non-control group design (Buyukozturk, 2014: 171). As listed above, some passages of the works in violin, flute and qanun literature were presented to the study group as pre-test and post-test questions. Then, training study was conducted for 4 weeks, one hour per week. In this training, dictation exercises were performed with violin, flute and qanun. In addition, the students were informed technically about the flute and the qanun while only having dictation exercises with violin. After the training process, the dictation questions asked in the pretest were asked again in the posttest. All pre-test and post-test questions were performed by the faculty members of the Department of Music Education of the Faculty of Fine Arts Education of the MSKU. The dictation in the training study were performed by master's students in the same department.

In addition, at the end of the posttest, the structured "Student Information and Opinion Form" that prepared by the researcher (Yildirim and Simsek, 2013: 148) was given to the students and they were asked to fill it out. In this way, it aimed to get information about the students' past musical experiences to compare with their success in the study. Although this form was structured, one open-ended question was asked as the final question. In last question, the students were asked to share their opinions about why they had difficulty in this study. In the tables of the qualitative findings, these data are evaluated. Furthermore, three experts were also asked for their opinions about this form.

Analyzing Datas of the Study

The student scores obtained in the pre-test and post-test were analyzed by SPSS v22 and JASP v. 0.10 softwares. In statistical analysis, a significance level of 0.05 was accepted in the findings. Because of the small sample size, the Wilcoxon paired series test -which compares the significance of the difference between the scores of two related sets of measurements- was used to compare the scores of the students from the pre-test and post-test (Buyukozturk, 2019: 173). The Kruskal Wallis test, which compares inter-group experimental studies that consist of a small number of subjects (Buyukozturk, 2019: 168) was also used to compare students' success between musical instruments. Finally, the success levels of the students by instrument and test were compared by Tukey test, which checks the trial error in cases where errors are caused by comparison of the average (Gundogdu, 2014: 314).

In the qualitative findings of the study, the information that was obtained through the "Student Information and Opinion Form" was interpreted by evaluating the students' success in the study.

FINDINGS

As mentioned before, this study is arranged in both quantitative and qualitative dimensions. As such, the results of the study will be discussed under two separate headings.

Findings Related to Quantitative Dimension of the Study

Here, the data related to quantitative analysis of the study problems are discussed. In the pre-test, the dictation study was performed with all three instruments. These pre-test dictations were performed first with violin, then with flute and lastly with qanun. The results of the pre-test, the average achievements of the students from all instruments are given in table 1.

Table 1: Pre-Test and Post-Test Success of Students

	N	Mean	SD	SE
Pre-test Violin	10	47.802	12.181	3.852
Post-test Violin	10	63.240	10.593	3.350
Pre-test Flute	10	41.302	11.980	3.788
Post-test Flute	10	60.815	11.482	3.631
Pre-test Qanun	10	30.317	11.189	3.538
Post-test Qanun	10	56.390	15.316	4.843

As seen in table 1, there is a significant difference between students' pre-test and post-test scores. Because of the size of the sampling in this study, Wilcoxon signed-rank test was applied to compare students' pre-test and post-test. The results are given in table 2:

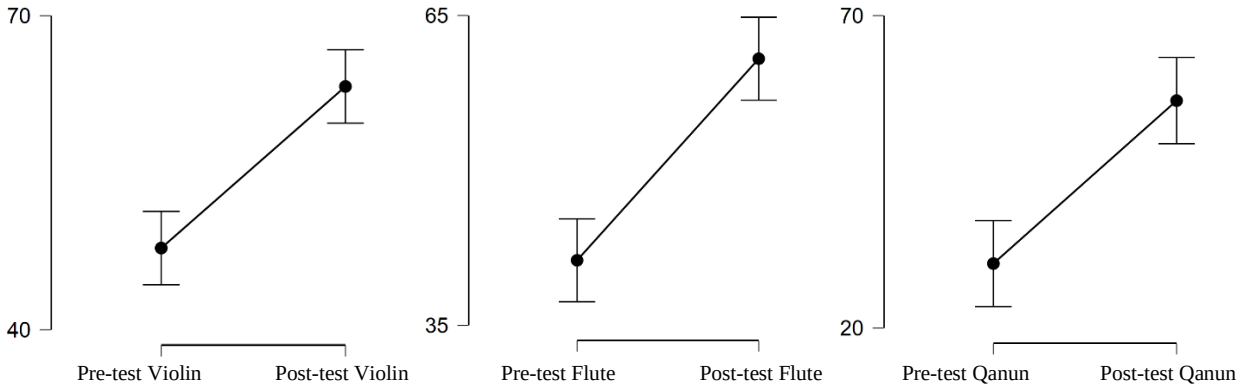
Table 2: Pre-Test, Post-Test Wilcoxon Signed-Rank Test Results

			W	p
Pre-test Violin	-	Post-test Violin	0.000	0.002
Pre-test Flute	-	Post-test Flute	0.000	0.002
Pre-test Qanun	-	Post-test Qanun	1.000	0.004

As the Wilcoxon paired signed-test scores, a significant difference is seen between the pre-test/post-test results of all instruments. In addition, it is understood that the difference between the pretest and posttest achievement levels of the dictates written by the qanun are higher than the other instruments.

The difference in the success of the students between violin, flute and qanun pre-test and post-test is presented visually in Graph 1 below.

Graph 1: The difference Between Students' Pre-Test and Post-Test Achievement Level For Instruments



As seen in Graph 1, there is an increasing difference between success levels of all students among all tests. Therefore, it is understood that dictation training programs given by either violin, flute or qanun significantly contributed to students' dictation writing success.

At this point, the achievement scores of the students in the pre-test and post-test are compared reciprocally. In other words, whether any significant difference exists between the dictations written by the individual instruments of the students and the dictations written by the technically unknown instruments will be examined along with whether the educational work has any effect on this.

The Kruskal-Wallis test was used to determine whether there is a significant difference between the dictation levels of the students with the violin and the other in the pre-test. The data related to this test are given in Table 3:

Table 3: Pre-Test Kruskal Wallis Test Results

Factor	Statistic	df	p
Instruments	7.905	2	0.019

As seen in Table 3 above, there is a significant difference between the achievement levels of students in each instrument in the pretest. Post-Hoc analysis and Tukey test were used to compare pre-test achievement scores with all instruments. The datas for the Tukey test are given in Table 4:

Table 4: Comparison of Pre-test Success Among Instruments

Post-Hoc Comparisons - Instruments

Pretest		Mean Difference	SE	t	p_{tukey}
Violin	Flute	6.500	5.273	1.233	0.445
Violin	Qanun	17.485	5.273	3.316	0.007
Flute	Qanun	10.985	5.273	2.083	0.112

According to the Tukey test data in Table 5, it can be said that there is no significant difference between pretest violin and pretest flute scores and pretest flute and pretest qanun scores. However, there is a significant difference between pretest violin and pretest qanun scores.

After the pre-test training activities, the post-test study was initiated and the questions asked in the pre-test were again asked in the post-test. Kruskal-Wallis test was used to compare students' post-test dictation achievement levels. The data related to the Kruskal-Wallis test are given in Table 5:

Table 5: Post-Test Kruskal Wallis Test Results

Factor	Statistic	df	p
Instruments	1.427	2	0.490

The datas in table 5 show that there is no significant difference between the post-test scores of the students from the dictations they wrote with violin, flute and qanun. Nevertheless, Tukey test, which is one of the Post-Hoc analysis types, was used to compare the post-test achievement of the students. Table 6 shows the data related to Tukey test:

Table 6: Comparison of Tukey Test Success Among Instruments

Post-Hoc Comparison - Instruments

Posttest		Mean Difference	SE	t	p_{tukey}
Violin	Flute	2.425	5.649	0.429	0.904
Violin	Qanun	6.850	5.649	1.213	0.456
Flute	Qanun	4.425	5.649	0.783	0.716

According to the data in Table 6, it is understood that there was no significant difference between the achievement levels of the students regardless of instrument in the post-test. This indicates the difference between the scores was closed after the training study.

Findings on the Qualitative Dimension of the Study

The findings in this section are obtained from the "Student Information and Opinion Form". Information about the first qualitative problem of the study and students' scores of dictation tests are given in Table 7:

Table 7: Scores and High School Graduates of the Students

S	Pre-test Violin	Pre-test Flute	Pre-test Qanun	Post-test Violin	Post-test Flute	Post-test Qanun	High School Type
1	28,71	48,45	45,52	48,7	62,1	44,7	Fine Arts
2	42,13	22,32	31,26	53,65	49,9	65,36	Other
3	54,68	40,24	17,2	66,8	59,5	30,53	Fine Arts
4	63,91	44,68	20,32	71	50,6	58,2	Fine Arts
5	49,94	55,48	41,85	76	80,5	78,5	Fine Arts
6	30,5	40,2	38,2	51,5	65,65	50,2	Fine Arts
7	55,15	41,25	18,1	68	63,5	40,2	Fine Arts
8	62,2	43,5	19,3	69,45	51	57,5	Fine Arts
9	40,15	20,5	29,2	52	47,9	62,45	Other
10	50,65	56,4	42,5	75,3	77,5	76,26	Fine Arts

According to the data in Table 7, eight students graduated from fine arts high schools and two students graduated from other high school types. However, it is possible to say that there is no difference between the scores from the dictations of the students who graduated from fine arts high school and those who graduated from other high school types. In other words, the musical background of the students who graduated from fine arts high schools did not cause any difference in this study when compared to students who graduated from other kinds of high schools. Put another way, students who graduated from non-art high schools had no disadvantage in dictation writing compared to those from art schools.

The data related to the second qualitative problem of the study are given in Table 8:

Table 8: Students' Success Level, Favorite Music Genres and Experiences in the Music Industry

S	**Favorite Music Genres**	**Music Genres Which Experienced in Music Industry**
1	All sorts of music	-
2	Rock, West. Classical Music. Jazz, R&B	-
3	Pop, West. Classical Music.	-
4	Pop	-
5	Arabesque, Turkish Class. Music, Turkish Folk Music, Pop	Turkish Class./Maqam Music, Arabesque Music, Pop Music
6	Pop, West. Classical Music.	-
7	Pop, West. Classical Music.	-
8	Pop, West. Classical Music.	-
9	Pop, Jazz, West. Classical Music.	-
10	Arabesque, Pop, Turkish Class. Music, Turkish Folk Music	Pop, Turkish Class. Music, Arabesque Music

According to the information in Table 8, eight of the students tend to listen to pop, classical and foreign music genres, while 2 students tend to listen to music genres such as pop, arabesque and Turkish classical/maqam music. These two students were relatively successful in dictations asked by flute and qanun. On the other hand, the scores of the other 8 students from the flute and the qanun dictations were lower than the violin dictation scores. Nonetheless a student coded as "student 1" had relatively high scores in pre-test qanun and pre-test flute dictation, even though his/her score in pre-test violin dictation success was low.

In this context, it can be said that the consistency in score distributions of the other two students did not occur in student 1.

If the data on favorite music genres and experience in the music market in Table 8 are evaluated mutually; it is remarkable that the two students who stated that they listen to music genres such as pop, arabesque and Turkish classical/maqam music, also have experience of working in the music industry. Because these two students' dictation scores in al both pre-test and post-test are relatively higher than the others'. Considering this finding; it is possible to say that there is a linear relationship between having experience in the music industry, listening to music types such as pop and arabesque beyond classical western music or other foreign music genres, and being successful in dictating with a traditional instrument such as the qanun.

Findings about the third qualitative problem of the study are given in Table 9.

Table 9: Students' Achievement Tests and Their Family Member's Relationship with Music

S	Pretest Violin	Pre-test Flute	Pre-test Qanun	Post-test Violin	Post-test Flute	Post-test Qanun	Family Member's Interests In Music
1	28,71	48,45	45,52	48,7	62,1	44,7	-
2	42,13	22,32	31,26	53,65	49,9	65,36	Turkish Class./Maqam Music, (Unprofessionally)
3	54,68	40,24	17,2	66,8	59,5	30,53	-
4	63,91	44,68	20,32	71	50,6	58,2	-
5	49,94	55,48	41,85	76	80,5	78,5	Turkish Class./Maqam Music, Arabesque Music, Turkish Folk Music, Pop (Professionally)
6	30,5	40,2	38,2	51,5	65,65	50,2	-
7	55,15	41,25	18,1	68	63,5	40,2	-
8	62,2	43,5	19,3	69,45	51	57,5	-
9	40,15	20,5	29,2	52	47,9	62,45	-
10	50,65	56,4	42,5	75,3	77,5	76,26	Turkish Class./Maqam Music, Arabesque Music (Unprofessionally)

As can be seen from the data in Table 9, it is understood that 7 students in the study group have no professional or amateur musicians in their families nor someone interested in music. 2 students have families who have amateur interest in music, and 1 student has at least one professional musician in the family. Looking more deeply one can see that of these three students' families their favorite music genres often use instruments such as violin, flute and qanun. Therefore, it can be assumed that these students had relatively less difficulty when writing dictation with the instruments used in these musical genres, as they had background experience. However, it should be added that there are other students who are successful in all three instruments in both pre-test and post-test dictations too.

Findings about the fourth problem regarding the qualitative dimension of the study are given in Table 10:

Table 10. Opinions of Students' About Their Success in This Study

S	**Most Difficult Dictation**	**Reason**	**Did you have an advantage while writing dictation with violin?**
1	1. Violin 2. Flute 3. Qanun	-I have never had a dictation exercise with these instruments	No
2	1. Violin 2. Flute	-I have never had a dictation exercise with these instruments	Yes, but sometimes I couldn't hear the pitches.

	3. Qanun		
3	1. Flute 2. Qanun 3. Violin	-I don't have any technical knowledge about flute and qanun. -I didn't recognize rhythmical structures of dictations. - I didn't recognize modal structure of qanun dictation. - I didn't recognize rhythmical structures of dictations. -I have never had a dictation exercise with these instruments	Yes, I could easily recognize the pitches.
4	1. Violin 2. Flute 3. Qanun	--I don't have any technical knowledge about flute and qanun. -I didn't recognize the tonal structure of dictations. - I didn't recognize modal structure of qanun dictation.	Yes, I could identify violin tones, so it was an advantage for me.
5	1. Violin 2. Flute 3. Qanun	-I have never had a dictation exercise with these instruments	Yes, when I hear violin I can imagine which pitch is resonating.
6	1. Violin 2. Flute 3. Qanun	-I have never had a dictation exercise with these instruments	No, I don't think, it wasn't an advantage.
7	1. Qanun 2. Violin 3. Flute	-I don't have any technical knowledge about flute and qanun. - I didn't recognize modal structure of qanun dictation.	Yes.
8	1. Violin 2. Flute 3. Qanun	-I have never had a dictation exercise with these instruments -I don't have any technical knowledge about flute and qanun.	Yes, it was an advantage for me.
9	1. Flute 2. Qanun 3. Violin	-I have never had a dictation exercise with these instruments	Yes, it was easier to recognize the pitches in dictation.
10	1. Violin 2. Flute 3. Qanun	-I have never had a dictation exercises with these instruments	Yes, it was easier to recognize the notes of violin

According to the information in Table 10, 7 students stated that the most difficult dictation was the violin dictation although they take scored highest with violin. However, 2 students stated that they had the most difficulty in the flute question. The views of these 2 students are consistent with their scoring in the flute dictations. In addition, 1 student who stated that he/she had the most difficulty in dictation written by qanun, received lower scores in qanun dictations than the other instruments. Therefore, this student's opinion on dictation difficulty is consistent with scores.

The reason why students have difficulty in dictations is largely because they have never performed dictation studies before. They lack technical familiarity the flute and qanun. Apart from those reasons, the rhythmic, tonal and maqam structures in the dictation questions are listed as causing difficulty in dictations. For the students, it is this combined lack of technical familiarity and dictation practice that creates the challenge.

If we look at student' opinion on whether writing dictation with violin provides an advantage their answer is mostly "yes" save for two students who think differently. These 2 students think that they had no advantage while writing dictations with violin. Although the

two students thought it an advantage when listening with the violin, it was observed that the violin dictations were neither high nor low when compared to other instruments. Therefore, it can be said that these two students had no perceived or actual advantage when writing dictation with their individual instrument.

RESULTS, DISCUSSION AND SUGGESTIONS

In the light of the quantitative data it is possible to list the following results.

- There is no statistically significant difference between the success level of the students with violin in pre-test and post-test questions.
- There is no statistically significant difference between the scores in the pre-test and post-test in the dictations with the flute.
- There is no statistically significant difference between the scores in the pre-test and post-test in the dictations with the qanun.
- In the pre-test question for violin, the scores of the students have a significant difference compared to the flute and the qanun. Their success is in favor of the violin.
- There is no statistically significant difference between the students' scores on the post-test violin, the post-test flute and post-test qanun scores. In the post-test questions, the students have achieved success close to violin with other instruments.
- The study contributed positively to the students' dictation writing with an instrument they did not recognize technically; they have achieved almost the same success with other instruments as their success in dictated violin.

The qualitative data of this study are listed below.

- It can be said that the type of high school that the students in the study group graduated from was not a factor affecting their success in this study.
- In the pre-test of the study, it was understood that the students who succeeded in all instruments with similar accuracy tended to listen to music genres such as pop music, arabesque music and Turkish classical/maqam music in their daily life.
- Those students who stated that they were listening to music genres such as pop, arabesque and Turkish classical/maqam music also had working experience in the music industry. Thus, it is possible that having experience in the music industry, listening to music genres such as pop, arabesque or Turkish classical/maqam music as well as Western classical music or foreign music genres will all contribute to successful dictation with a traditional instrument such as the qanun.
- The study found that students whose family members had an interest in music professionally or non-professionally, were successful in all tests.
- It was understood that 7 of the students in the study group stated that the dictation they had the most difficulty with was by violin. However, the scores of 3 of these 7 students in the pre-test violin dictation were higher than the pre-test flute and pre-test qanun questions. Therefore, it can be said that 4 students had difficulty in dictating with their individual instruments.
- It can be seen that most students expressed difficulty in dictating with all instruments in this study. According to the students, the main reason for difficulty is that they have never written dictation with these instruments before. However, it is understood that students do not recognize flute and qanun instruments technically, creating second important aspect of difficulty for them.

- While 8 students stated that dictation with violin was more advantageous, 2 of these students' pre-test or post-test violin scores were below flute or qanun or both. However, the success of the other six students was found to be in favor of familiarity with the violin as an instrument. Therefore, it can be said that students may have an advantage when writing dictation with their individual instruments; especially in the pre-test.
- Finally, the main assumption of this study was that the study group, whose individual instrument was violin, knew the violin well technically, causing them to be more successful in pre-test violin dictation. The difference in score between instruments would then be reduced after the training program. Based on the results, there is a parallel between this assumption and the findings obtained from the study as almost all students could write dictation successfully on all instruments in post-test.

The results of the study conducted by the researcher in 2017, was about using violin as a dictation instrument instead of piano and its effect on student' success level. This study showed that after a training program, there was no significant difference between control and experimental groups scores (Sinir, 2017: 536). In other words, the experimental group which wrote dictation with violin was successful as the control group which did dictation with piano. It could be said that in this new study, the results are closely related to the researcher's earlier 2017 study.

In her doctoral study in 2011, Ozaltunoglu concluded that students could write dictation better when they thought with the "moving do" method. One of the results of this study was that there was no significant difference between a student's high school type and their success in dictation (2011: 109). Similar to Ozaltunoglu's conclusion, the present study shows that this variable was not an important factor in the success of students either.

One of the results of Yildirim's doctoral dissertation, which examines the use of maqam scales in ear education, is that using maqam music scales and pieces in musical ear training studies would increase the quality of the course (Yildirim, 2012: 189). One of the instruments tested by this study was qanun and the test question for qanun was in Nihavend maqam, which we consciously assume that students will not feel alienation in perceiving. So, considering the results of present study, it can be said that the practice of dictation by qanun or any traditional instruments and different maqam scales would increase the quality of dictation courses.

As a suggestion, it is a necessity that students should be prepared for dictation situations that they may encounter in any medium in accordance with the purpose of the dictation program. A music student or musician should be prepared to perform dictation with all instruments that may be encountered outside the school boundaries.

Therefore, the dictation curriculum of music education institutions should be arranged to meet this this need for all instruments. In any case, it is thought that dictation studies in different traditional instruments and different maqam scales improve the musical qualifications of music students. Finally, keeping music students as broad as possible and listening to traditional music genres can also contribute to writing dictation more successfully with any musical instrument or in any musical structure.

REFERANCE

- Akyurek, R. (2019). "Investigation of Musical Acclaim Status of Music Training Candidates: Sample of Mugla Sitki Kocman University". Turkish Studies Educational Journal. Volume 14 Issue 5, 2019, p. 2047-2058.
- Apaydınlı, K. (2006). The Problems and Solution Suggestions for Anadolu Fine Arts High School Music Department Students Which They Encounter in Musical Ear Training and Sight Singing Course. Gazi University Institution of Educational Sciences. Unpublished Master Thesis, Ankara.
- Bas, E. (2015). An Investigation for a Model of Beginner Level Solfeggio and Dictation Education by Using Melodic Patterns. Inonu University Institution of Educational Sciences. Unpublished Ph.D. Thesis, Malatya.
- Buyukozturk, S., Kılıc Çakmak, E, Akgun, O. E, Karadeniz, S, Demirel, S. (2014). "Scientific Research Methods" Ankara, Pegem Academy.
- Buyukozturk, S. (2019). Data Analysis, Statistic, Research Model SPSS Applications and Interpretation for Social Sciences. Ankara: Pegem Academy.
- Cleland, K.D. ve Dobrea-Grindahl, M. (2010). "Developing Musicianship through Aural Skills: A Holistic Approach to Sight Singing and Ear Training" New York, Oxon, Routledge.
- Dundar, M. (1986). Investigation of Musical Ear Training in Basic Dimensions. Gazi University Institution for Sciences. Unpublished Master Thesis, Ankara.
- Elhankizi, A. (2015). Dictation Exercises. Ankara: Education Publishing.
- Gazimihal, M. R. (1961). Music Dictionary. Istanbul: National Education Press.
- Gunay, E. (2006). Music Sociology, A General View from Sociology to Music Culture. Istanbul: Baglam Publication.
- Gundogdu, S. (2014). The Usage of Common Multiple Comparison Tests (Post-Hoc) in Fisheries Sciences. Journal of Fisheries Sciences. 8(4), s. 310-316.
- Hedges, D. P. (1999). "Taking Notes: The History, Practice, and Innovation of Musical Dictation in English and American Aural Skills Pedagogy". Doctoral dissertation, Indiana University.
- Klonoski, E., (2006). "Improving Dictation as an Aural-Skills Instructional Toll". Music Educators Journal, Vol. 93, No. 1, s. 54-59.
- Lavignac, A., (1939). Musical Training. Translated by Abdulhalik Denker, Istanbul: Kanaat Bookstore.
- Ozaltunoglu, O. (2011). The Effect of Moveable-Do Method On Development of Graduate Students' Dictation Skills. Inonu University Institution of Educational Sciences. Unpublished Ph.D. Thesis, Malatya.
- Ozcelik, S. (2010). Musical Dictation and Solfeggio. Izmir: Lamineks Press.
- Ozgul, Y. (2016). The Effect of Computer Assisted Melodic Dictation Instruction on Students Achievement. Gazi University Institution of Educational Sciences. Unpublished Ph.D. Thesis, Ankara.
- Ozgur, U. ve Aydogan, S. (2015). Musical Ear Training, Solfeggio Education and Theory- Book I, Ankara: Gazi Bookstore.
- Sinir, I., (2017). An examination of the Effect of Using Violin Instead of Piano in Melodic Dictation Exercises on Student's Success Level. Pamukkale University 1. Art Education Symposium, 20-22 April, Denizli, p. 531-538.
- Sisley, B. A. (2008). A Comparative Study of Approaches to Teaching Melodic Dictation. Unpublished Master's Thesis, Kent State University.

- Yıldırım, F. (2012). A Proposal for Utilizing Turkish Maqams in Ear Training Courses and Its Effect on Student's Achievement. Selcuk University Institution of Educational Sciences. Unpublished Ph.D. Thesis, Konya.
- Yıldırım, A., Simsek, H. (2013). Qualitative Research Methods in Social Sciences. Ankara: Seckin.