



# **Effectiveness of the Exercises Prepared to Play Zeybek Music on the Violin (The Case of Aydın Kadiođlu Zeybek)<sup>1</sup>**

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## **Effectiveness of the Exercises Prepared to Play Zeybek Music on the Violin**

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### **ABSTRACT**

This research aims to determine the effectiveness of the exercises prepared for violin adaptations which are similar to the traditional playing styles of zeybeks. For this purpose, an experimental study was carried out on the Aydın Kadiođlu Zeybeđi sample. The research was conducted with Gazi University Gazi Faculty of Education Department of Fine Arts Education Division of Music Education violin students in the 2017-2018 academic year with a single-group pretest-posttest experimental design. Ten exercises prepared by the researcher were studied with the students within the eight week lesson plan. With Aydın Kadiođlu Zeybeđi Musical Performance Evaluation Scale, students' pretest and posttest recordings were scored by three violin educators. Aydın Kadiođlu Zeybeđi violin adaptation consists of seven measures. A significant difference was found in favor of the posttest in terms of intonation, being able to play the correct note, right-hand techniques, left-hand techniques, and being able to play an acceptable tempo for each measure, both for each criterion and the sum of all criteria. A significant difference was found in favor of the posttest in the sum of all criteria for the entire piece. As a result, it was understood that the exercises prepared for the playing of Aydın Kadiođlu Zeybeđi made a positive contribution to the playing of the piece. When violin adaptations are adapted by adhering to traditional performances used for educational purposes, it is recommended that these adaptations be studied with preparatory exercises.

**Keywords:** Adaptation; violin education; zeybek; Aydın Kadiođlu Zeybeđi; traditional playing style.

### **INTRODUCTION**

The violin has spread to various cultures and has been included in different music genres worldwide. In Turkey, the violin is used in classical Western music, contemporary polyphonic Turkish music, Turkish classical music, and Turkish folk music performances, as well as generally known popular music genres. In this research, the violin is discussed in terms of zeybek music performances on the axis of Turkish folk music. According to Özbek (2014), folk music is created by the people and reflects the aesthetic tendencies of them. According to Büyükyıldız (2015), Turkey shows richness and diversity that is rare in the world in terms of folk music. The rich musical elements of each tribe that the Turks brought from Central Asia interacted with the cultural accumulations in Anatolia and became even richer with new musical syntheses. In this way, cultural products with different characteristics and beauty have emerged in every geographical region in Turkey. This musical richness is the reason why Turkish folk music is included in the formal violin education in Turkey. Alpagut (2001) stated that Turkish folk melodies offer extraordinarily rich potential for instrumental creation and imagination in violin education practices that require new areas of creation and diversity. According to Kurtaslan (2009), the importance of the national violin repertoire is an undeniable fact to make the learning environment effective in 21st-century violin education.

Akdođu (2004) expressed zeybek as both an identity, a dance genre, and a music genre. Zeybeks are members of an organized community that lived along the Aegean Sea and Mediterranean coasts of Anatolia from approximately the 18th century to the first quarter of the 20th century" (Özbilgin, 2012). There are different studies on the origin of the word zeybek. Although the studies on this subject have been examined in detail, it would be appropriate to include the definition of Akdođu (2004) in order not to deviate from the subject axis of this article. In his book, Akdođu, giving detailed research on the word zeybek, stated that the origin of this word comes from saybek meaning solid, protective, strong protector. When the word zeybek is defined as the music that accompanies zeybek dance, it becomes a sub-genre of Turkish folk music.

Due to the rich melodic and rhythmic structures in, zeybek music is included in both instrument education and violin education through adaptations and original compositions (Akyürek, 2002; Önder, 2012). Due to the research context, in this study, zeybek melodies will be discussed by adapting them to the violin.

While adaptation is generally a spontaneous process in traditional Turkish folk music (Erzincan, 2006); it turns into a planned process when Turkish folk music is considered as a violin education material. Turkish folk music pieces performed with traditional folk instruments can be included in violin education, considering the technical possibilities of the violin (Bulut, 2001). The fact that each instrument has its own playing technique makes this necessary. In this research, it is thought that zeybek music needs methodical and systematic progress in order to be included in the violin education process, which covers eight semesters and one hour a week, especially in music education departments.

Parasız (2009) states that the biggest shortcoming of violin education, which is practiced in music education departments in Turkey, is that Turkish folk music melodies cannot be adequately included in violin education. In a large-participation study conducted with a group of violin educators working in music education departments, Gülüm and Albuz (2019) revealed that violin educators mostly stated deficiencies in etudes, exercises, and adaptations from Turkish folk music. Considering the existence of similar studies in viola education (Albuz, 2001) and cello education (Demirci, 2013), it can be thought that these results will be valid for Turkish string instrument education in general.

As part of his doctoral dissertation, Gülüm (2019, 2020) adapted *Aydın Kadioğlu Zeybeği* (AKZ) to the violin. The most important aspect of this adaptation is to be as faithful as possible to traditional zeybek melodies. Two zurnas and one davul player play zeybek melodies traditionally. The zurna is a traditional wind instrument used in Turkish folk music. The davul is a traditional percussion instrument used in Turkish folk music. The task of the first of the two zurna players is to play the melody, and the task of the other is to play the drone. The drum player follows the foot movements of the person or persons performing the zeybek dance, playing the rhythms in unity with the zurnas and adjusting the tempo. It is not easy to transfer the traditional melodic effect of these three instruments to a soloist instrument. Gülüm (2019) explained the whole adaptation process in detail in his doctoral dissertation. This research will be examined how the AKZ violin adaptation, which contains traditional performance styles, can be played correctly by students in music education departments. Therefore, the problem statement is stated as “What is the result of the examination of the effectiveness of the exercises prepared to be played the zeybek melodies on the violin through the example of *Aydın Kadioğlu Zeybeği*?”

In this direction, the problems to be examined in the research were determined as follows:

1. Is there a difference between the pretest and posttest scores of the students based on measures according to different parameters such as intonation, playing the right note, left-hand techniques, right-hand techniques, and tempo?
2. Is there a difference between the pretest and posttest scores of the students for the performance of the whole piece, musically and technically?

## METHOD

### Research Model

The model of the research is the pretest-posttest single-group experimental model. The experimental method is a process aimed at determining what kind of reaction (output) will occur in response to a certain action (input) under carefully controlled conditions. Researcher observes and tries to understand how the behaviors of individuals are affected and changed by changing, adjusting, controlling certain effects, pathways or environmental conditions (Kaptan, 1998). It was aimed to determine the effects of the original exercises prepared for the violin adaptation of AKZ on the performance levels of the students in this study. For this purpose, it was decided to form an experimental group with a single group in order to measure and evaluate the effectiveness of the exercises.

### AKZ Sample

The primary source of Turkish folk music notes in Turkey is the Turkish Radio and Television (TRT) Turkish folk music repertoire notes. As a result of personal observations made in the Aegean region, it has been seen that the compilation of zeybek music continues at its usual pace. There are many examples of zeybek music that have been recorded but not published. Therefore, zeybek music is the target universe of this research, since there are difficulties in accessibility and concretization in such a dynamic area where new melodies can be encountered at any time. The accessible universe of the research consists of zeybeks, which are included in the repertoire of TRT instrumental Turkish folk music. As a result of the evaluations, a total of 174 zeybek music belonging to this repertoire were determined.

All of the individuals, objects or cases that the researcher is interested in theoretically and want to generalize about are expressed as the target universe. The accessible universe, on the other hand, reflects the ideal where the research can be carried out (Gliner, Morgan, & Leech, 2016). AKZ, which is in the accessible universe and which is the subject of the research among 174 zeybek music was determined by simple random sampling. AKZ is in the Nikriz makam and is a zeybek in the 3+2+2+2 structure of the 9/2 time signature. In the context of the universe and sample relationship, the important expressions seen in the literature regarding AKZ and the musical features that represent it are stated here.

- “A total of 526 zeybek melodies are grouped under 26 different makams. With 85 melodies, the Hüseyini makam is in the first place, with 76 melodies; the Uşşak makam is in the second place; and the Nikriz makam is in the sixth place with 47 melodies” (Akdoğan, 2004, p.1153).
- “It has been determined that the makams Kerem, Garip, Müstezat, Bozlak, Nikriz, and Karcıgar are used frequently in Aegean folk songs. It can be said that these makams can be easily adapted to violin education” (Akyürek, 2002, p.58-59).
- When the origin and spread areas of zeybek dances and melodies are examined; the source of today's zeybek dances and melodies are primarily Aydın province (Mirzaoğlu, 2000).
- Aydın province and its surroundings are almost the center of the zeybek due to its geographical location (Özbilgin, 2003).
- “One of the regions where the makam diversity is most intense in zeybek melodies is the Aydın region. It is possible to attribute this fact to the fact that it was once a state” (Akdoğan, 2004, p.1077).
- “Aydın province is an important model of the zeybek region” (Öztürk, 2006, s.21).
- “According to the makam distribution of Aydın region zeybeks, Nikriz makam ranks first with 24%; Uşşak makam ranks second with 16%” (Akdoğan, 2004, p.1079).
- “*Kadioğlu Zeybeği* is one of the first melodies that come to mind when Aydın is mentioned” (Demir, 2012, p.317).
- “*Aydın Kadioğlu Zeybeği* is one of the main slow-tempo instrumental dance styles” (Mirzaoğlu, 2000, p.223).

As can be seen, AKZ's ability to represent the accessible and target universe discussed in the research is high. In other words, the sample represents the universe in terms of external validity.

### Study Group

A study group (n=8) was selected among the violin students of Gazi University Gazi Faculty of Education Department of Music Education Department in order to determine the performance levels of AKZ violin adaptation and the effectiveness of the exercises prepared for the adaptation. The study group was determined by the purposive sampling method. In purposive sampling, researchers use their specific knowledge or experience about certain groups when choosing participants who represent the universe. In some cases, purposive samples are selected after field research is conducted to ensure certain types of individuals in the research or individuals exhibiting certain characteristics (Lune & Berg, 2015). The criteria for the inclusion of students in the study group are as follows:

- Being an undergraduate student as of the 2017-2018 academic year.
- Being a violin student.
- Being able to apply legato, detache, staccato, and ricochet techniques.
- Being able to apply left and pizzicato, vibrato, double stops, glissando, and flageolet techniques.
- Being able to play in 1st, 2nd, 3rd, and 4th positions.
- Being able to play trill.

In order to be included in the study group, the individual instrument performance level was taken as the basis, not the class level. Therefore, in the study group, there are students from all classes, including undergraduate 1, 2, 3, and 4, who have reached similar skill and performance levels. However, the pretest records of the study group were scored by three experts with the performance evaluation scale developed for the research, and then the data obtained were subjected to the Levene homogeneity test.

**Table 1. Levene Homogeneity Test table**

Homogeneity Test	Levene statistic	sd	p < 0,05
Total	,768	7	,525

### Data Collection

The ethics committee approval certificate was taken from Gazi University Ethics Committee (decision dated 14.05.2018-E.76179) for the research.

In order to collect the data for the research, AKZ, which was adapted for the violin, was played by the students and recorded. The recordings and the AKZ musical performance rating form were given to the jury consisting of 3 violin educators working in different music education institutions. After the pretest evaluations were completed, ten exercises prepared for AKZ were applied as individual face-to-face lessons with all students in the experimental group for a total of eight hours, one hour a week. After the lessons were completed, three expert educators were asked to rate the posttest videos.

### **AKZ Musical Performance Rating Form**

Studies on musical performance evaluation in the literature were examined and a 5-point Likert-type evaluation form consisting of 5 criteria was created by taking expert opinions in order to evaluate the pretest and posttest measurements. After this step was taken for the content validity of the form, the criteria was tested with Cronbach's Alpha statistics.

**Table 2: Cronbach's Alpha Reliability Test results**

Criteria	N	Cronbach's Alpha pretest	Cronbach's Alpha posttest
Intonation	5	,920	,924
Being able to play the correct note		,926	,930
Right-hand techniques		,925	,915
Left-hand techniques		,917	,920
Being able to play with an acceptable tempo		,935	,926
Total	5	,931	

It was determined as a result of the statistical analysis that the reliability of the criteria was provided (Cronbach's Alpha (a) = 0.931 > 0.60).

### **The Preparation of the Exercises**

AKZ violin adaptation is in 9/2 time signature and consists of 7 measures (see appendices). In order to create exercises for AKZ violin adaptation, the difficulties that may be encountered in the performance of the piece were determined. For this purpose, violin education experts were asked to examine the adaptation. As a result of the examinations, the opinions of the experts were taken about which parts of the adaptation should be practiced with exercises. Then a general framework was determined for the creation of the exercises. In general, the topics of the exercises are listed as follows:

- Nikriz makam scale.
- Position shifts and Neveser and Tarz-i Nevin note transition in the Nikriz makam.
- Ornamental notes and some rhythmic-melodic patterns
- Glissando
- Ricochet
- Trill
- Vibrato (It has a special playing style for the adaptation)
- Left hand pizzicato

### **Nikriz Scale Exercise**

The formations of the Neva part and the Buselik part of the Nikriz makam have been used in the makam scale practice since they are both a feature of the makam and are also seen in traditional zurna performances (see appendices).

### **Finger Exercise in Nikriz Makam**

A basic down bow-up bow movement and continuous four-tied adjacent notes are used. The fact that the melodic structure in the original piece is mainly established with continuously adjacent notes has been one of the main factors in the creation of finger practice in this direction. Öztürk (2006) states this situation as "an important characteristic of zeybek melodies is that they are based on adjacent notes centered around a note in the center of gravity, causing binary intervals to gain importance" (p.150-151). Since the original piece is in the 9/2 time signature, the exercise is written in 9/2 (see appendices).

### **First Exercise for Trills and Ornaments**

In order to operate the melodic structure seen in the first beat of the second measure, firstly, notes were written with an eighth and sixteenth and then continued again with sixteenth and thirty seconds. After the target melodic

pattern was played with a trill in its original time, the ornaments were written clearly, and then the exercise ended by showing the original form of the ornaments in the piece. In order for the notes in the melodic pattern to be played correctly in the lessons, it was requested that 60 metronome beat for eighth and then 40 for quarter (see appendices).

#### **Second Exercise for Trills and Ornaments**

The second trill and ornament exercise, which was prepared in the 9/2 time signature, was first started with only C and B flat, without ornament and trill, in order to practice the melodic pattern seen in the 3rd beat of the first measure. Afterward, the ornament in the first eighth was practiced with clear writing, followed by the trill. It was then practiced with the original writing. In order for the notes in the melodic pattern to be played correctly in the lessons, it was requested that 60 metronome beat for eighth and then 40 for quarter (see appendices).

#### **Glissando Exercise**

The glissando exercise, which was prepared in the 9/2 time signature, was started with glissando exercises first on the half notes, then on the quarter, eighth and sixteenth notes, in order to practice the melodic pattern in the second beat of the 2nd measure of the piece. In the next section, the non-trill form of the pattern was written first, and the actual pattern was written last. In order for the notes in the melodic pattern to be played correctly in the lessons, it was requested that 60 metronome beat for eighth and then 40 for quarter (see appendices).

#### **Ricochet Exercise**

In the exercise prepared in the 9/2 time signature, the arpeggio notes are written in the quarter, eighth, sixteenth, and thirty-second order to practice the note pattern in the first beat of the 4th measure. Due to the arpeggio notes heard as the sixty-fourth in the clear writing of the pattern, the ricochet technique was first practiced with single notes and then in its original form. Finally, the exercise was completed by showing the pattern in clear writing and its form in the work (see appendices).

**Grace Notes Exercise.** In the exercise prepared in the 9/2 time signature, it is written completely plain with the second quarter part of the half note in order to operate the melody pattern seen in the 2nd beat of the 5th measure. Then the first eighth of the pattern is divided into two sixteenths, and then the second of these sixteenths into four thirty-seconds. Thus, the pattern is likened to the adaptation. Finally, the clear writing of the pattern in the piece is shown (see appendices).

#### **Triplet Exercises**

For the pattern seen at the end of the second measure, first, the triplets in the two-eighths were reduced to one, and then triplets were played without grace notes. Finally, the second measure was completed by adding grace notes. In the last measure, the pattern seen in the first quarter of the last half of the measure is written. For this, four equal sixteenths were written first. Then the second sixteenth is indicated as triplets. Afterward, the first two were divided into sixteenth, dotted, and thirty-second, thus preparing for the sixty-fourth triplet form included in the thirty-second. Finally, the exercise was completed by writing the original pattern (see appendices).

#### **Vibrato Exercises**

A special vibrato is heard while AKZ is performed with zurna. It is necessary to briefly explain this vibrato, which is mostly heard between A and B flat notes. This vibrato has wide oscillation and it is microtonal. It was not possible to capture this sensation with the usual vibrato form on the violin. Solving this problem was possible with the following steps; Placing note A in the 3rd position with the 2nd finger, starting the vibrato by keeping the 3rd finger close to the 2nd finger, and lightly touching the 3rd finger to the B flat note during vibrato. In this way, both wide oscillation and microtonal vibrato were obtained. Gülüm (2019; 2020) explained the detailed literature review and all technical studies on this vibrato (see appendices).

#### **Left-Hand Pizzicato Exercise**

The left-hand pizzicatos used in the piece are used to reflect the double zurna structure in the local tradition and the rhythmic effects of the davul. Considering that the drone zurna accompanies the piece from the beginning to the end in the tradition, its importance in violin adaptation will also be understood. It is especially important to use the second and third fingers in the playing of the left-hand pizzicato. Since accent marks are used in almost all of the left-hand pizzicatos in the adaptation, it was deemed appropriate to use the second and third fingers in order to make these sounds louder. In the exercise, 9/2 time signature and Nikriz makam are used. Left-hand pizzicato used with G and G-D notes (see appendices).

#### **Lesson Plan for the Experimental Process**

The teaching and practice process followed through the 10 exercises created within the scope of the research is shown in the figure below.

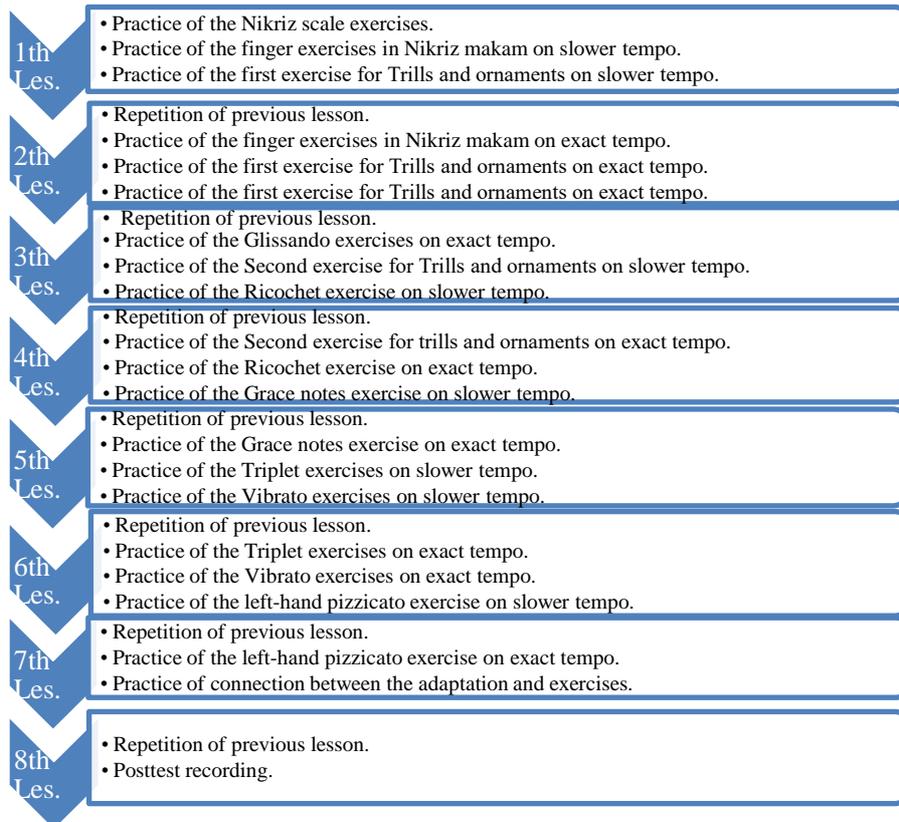


Figure 1: Lesson plan for the experimental process

### Analysis of Data

The data relating to the experimental studies were analyzed by transferring them to the SPSS 17.0 (The Statistical Packet for The Social Sciences) package program for statistical analysis. Kolmogorov-Smirnov normality test was applied to determine whether the scoring of the expert educators on the form for the pretest and posttest showed a normal distribution. If the scoring distribution is normal, parametric tests will be used, and if not, non-parametric tests will be used. Kolmogorov-Smirnov test results are shown in the table below.

Table 3. Pretest-Posttest Kolmogorov-Smirnov Normality Test results

Type of assessment	Criteria	Pretest			Posttest		
		Kolmogorov Smirnov			Kolmogorov-Smirnov		
		Statistic	df	Sig.	Statistic	df	Sig.
Each measure on the basis of criteria	Intonation	,253	8	,001	,309	8	,000
	Being able to play the correct note	,316	8	,001	,364	8	,001
	Right-hand techniques	,292	8	,000	,316	8	,000
	Left-hand techniques	,267	8	,002	,312	8	,000
	Being able to play with	,350	8	,000	,334	8	,000
Total of 7 measures on the basis of criteria	Intonation	,179	8	,054	,112	8	,200
	Being able to play the correct note	,124	8	,200	,188	8	,058
	Right-hand techniques	,160	8	,113	,215	8	,055

	Left-hand techniques	,111	8	,200	,162	8	,106
	Being able to play with an acceptable tempo	,158	8	,127	,243	8	,051
Sum of criteria for each measure	All criteria	,165	8	,099	,148	8	,158
Grand total by class	Class	,174	8	,200	,251	8	,135
The overall total	The overall total	,091	8	,200	,177	8	,051

In light of this information, it was decided to use both parametric and non-parametric tests in the study. Wilcoxon Signed Ranks Test, one of the non-parametric tests, for the evaluation of each measure score based on criteria; Paired Samples t-Test, one of the parametric tests, was used to evaluate the sum of criteria and total scores for each measure.

## FINDINGS

### First Problem

According to the first problem, the statistical results of the students' pretest and posttest scores are as follows. Negative ranks (N.R.), Positive ranks (P.R.), and equal ranks (E.R.) are indicated by the abbreviations in the tables.

**Table 4. Wilcoxon Signed Ranks Test table for pretest-posttest difference for intonation criterion**

Mesure Number	Rank	N	Rank Mean	Rank Total	Z	p<0,05
1	N.R.	0	,00	,00	-3,900	0,000*
	P.R.	6	9,50	171,00		
	E.R.	2				
2	N.R.	0	,00	,00	-4,215	0,000*
	P.R.	7	11,50	253,00		
	E.R.	1				
3	N.R.	0	,00	,00	4,362	0,000*
	P.R.	8	12,50	300,00		
	E.R.	0				
4	N.R.	0	,00	,00	-4,104	0,000*
	P.R.	7	11,00	231,00		
	E.R.	1				
5	N.R.	0	,00	,00	-4,193	0,000*
	P.R.	7	11,50	253,00		
	E.R.	1				
6	N.R.	0	,00	,00	-4,308	0,000*
	P.R.	8	12,00	276,00		
	E.R.	0				
7	N.R.	0	,00	,00	-4,291	0,000*
	P.R.	8	12,00	276,00		
	E.R.					

According to the rank totals, there is no positive or negative trend in the development of 2 students in the 1st measure and 1 student each in the 2nd, 4th and 5th measures. In the light of this table of rank totals, there is a statistically significant difference in favor of the posttest for each measure ( $p=0.000<0.005$ ).

**Table 5. Wilcoxon Signed Ranks Test table for pretest-posttest difference for being able to play the correct note criterion**

Mesure Number	Rank	N	Rank Mean	Rank Total	Z	p<0,05
1	N.R.	0	,00	,00	-3,787	0,000*
	P.R.	6	9,00	153,00		
	E.R.	2				
2	N.R.	0	,00	,00	-4,460	0,000*
	P.R.	8	12,00	276,00		
	E.R.	0				
3	N.R.	0	,00	,00	-4,332	0,000*
	P.R.	8	12,00	276,00		
	E.R.	0				
4	N.R.	0	,00	,00	-4,215	0,000*
	P.R.	7	11,50	253,00		
	E.R.	1				
5	N.R.	0	,00	,00	-4,244	0,000*
	P.R.	7	11,50	253,00		
	E.R.	1				
6	N.R.	0	,00	,00	-4,311	0,000*
	P.R.	8	12,00	276,00		
	E.R.	0				
7	N.R.	0	,00	,00	-4,142	0,000*
	P.R.	7	11,00	231,00		
	E.R.	1				

According to the rank totals, there is no positive or negative trend in the development of 2 students in the 1st measure and 1 student each in the 4th and 5th measures. In the light of this table of rank totals, there is a statistically significant difference in favor of the posttest for each measure ( $p=0.000<0.005$ ).

**Table 6. Wilcoxon Signed Ranks Test table for pretest-posttest difference for right-hand techniques criterion**

Mesure Number	Rank	N	Rank Mean	Rank Total	Z	p<0,05
1	N.R.	0	,00	,00	-4,311	0,000*
	P.R.	8	12,00	276,00		
	E.R.	0				
2	N.R.	0	,00	,00	-4,406	0,000*
	P.R.	8	12,50	300,00		
	E.R.	0				
3	N.R.	0	,00	,00	-4,401	0,000*
	P.R.	8	12,50	300,00		
	E.R.	0				
4	N.R.	0	,00	,00	-4,308	0,000*
	P.R.	8	12,00	276,00		
	E.R.	0				
5	N.R.	0	,00	,00	-4,192	0,000*
	P.R.	7	11,50	253,00		
	E.R.	1				
6	N.R.	0	,00	,00	-4,371	0,000*
	P.R.	8	12,50	300,00		
	E.R.	0				
7	N.R.	0	,00	,00	-4,417	0,000*
	P.R.	8	12,50	300,00		
	E.R.	0				

According to the rank totals, there is no positive or negative trend in the development of 1 student in the 5th measure. In the light of this table of rank totals, there is a statistically significant difference in favor of the posttest for each measure ( $p=0.000<0.005$ ).

**Table 7. Wilcoxon Signed Ranks Test table for pretest-posttest difference for left-hand techniques criterion**

Mesure Number	Rank	N	Rank Mean	Rank Total	Z	p<0,05
1	N.R.	0	,00	,00	-4,008	0,000*
	P.R.	7	10,50	210,00		
	E.R.	1				
2	N.R.	0	,00	,00	-4,093	0,000*
	P.R.	7	11,00	231,00		
	E.R.	1				
3	N.R.	0	,00	,00	-4,396	0,000*
	P.R.	8	12,50	300,00		
	E.R.	0				
4	N.R.	0	,00	,00	-4,247	0,000*
	P.R.	7	11,50	253,00		
	E.R.	1				
5	N.R.	0	,00	,00	-4,380	0,000*
	P.R.	8	12,50	300,00		
	E.R.	0				
6	N.R.	0	,00	,00	-4,364	0,000*
	P.R.	8	12,50	300,00		
	E.R.	0				
7	N.R.	0	,00	,00	-4,283	0,000*
	P.R.	8	12,00	276,00		
	E.R.	0				

According to the rank totals, there is no positive or negative trend in the development of 1 student each in the 1st, 2nd and 4th measures. In the light of this table of rank totals, there is a statistically significant difference in favor of the posttest for each measure ( $p=0.000<0.005$ ).

**Table 8. Wilcoxon Signed Ranks Test table for pretest-posttest difference for being able to play an acceptable tempo criterion**

Mesure Number	Rank	N	Rank Mean	Rank Total	Z	p<0,05
1	N.R.	0	,00	,00	-4,403	0,000*
	P.R.	8	12,50	300,00		
	E.R.	0				
2	N.R.	0	,00	,00	-4,394	0,000*
	P.R.	8	12,50	300,00		
	E.R.	0				
3	N.R.	0	,00	,00	-4,421	0,000*
	P.R.	8	12,50	300,00		
	E.R.	0				
4	N.R.	0	,00	,00	-4,398	0,000*
	P.R.	8	12,50	300,00		
	E.R.	0				
5	N.R.	0	,00	,00	-4,399	0,000*

	P.R.	8	12,50	300,00		
	E.R.	0				
6	N.R.	0	,00	,00	-4,447	0,000*
	P.R.	8	12,50	300,00		
	E.R.	0				
7	N.R.	0	,00	,00	-4,366	0,000*
	P.R.	8	12,50	300,00		
	E.R.	0				

According to the rank totals, there is no positive or negative trend in the development of 1 student in the 5th measure. In the light of this table of rank totals, there is a statistically significant difference in favor of the posttest for each measure ( $p=0.000<0.005$ ).

### Second Problem

According to the second problem, the statistical results of the students' pretest and posttest scores are as follows.

**Table 10. Pretest-posttest paired samples T-test for entire measures in all criteria and sum of criteria**

Criteria	Test	N	X	SS	sd	t	p<0,05
Intonation	Pretest	8	9,88	4,812	7	-13,164	0,000
	Posttest	8	20,08	3,775			
Being able to play the correct note	Pretest	8	12,19	3,407	7	-16,351	0,000
	Posttest	8	21,17	3,074			
Right-hand techniques	Pretest	8	12,58	4,221	7	-17,715	0,000
	Posttest	8	23,75	3,959			
Left-hand techniques	Pretest	8	11,92	4,106	7	-17,816	0,000
	Posttest	8	23,42	3,922			
Being able to play with an acceptable tempo	Pretest	8	3,63	6,609	7	-26,628	0,000
	Posttest	8	24,21	4,043			
Total	Pretest	8	50,29	16,311	7	-36,620	0,000
	Posttest	8	112,63	15,587			

There is a statistically significant difference in favor of the posttest in the sum of all measures for all criteria ( $p=0.000<0.005$ ).

### RESULT AND DISCUSSION

According to the results of the 'Wilcoxon Signed Rows Test' for each measure of the adaptation, there was a significant difference in favor of the posttest on all 5 criteria ( $p=0.000<0.05$ ).

According to the results of the 'Paired Samples t-Test' performed for the sum of all measures of each criterion, it was understood that there was a significant difference in favor of the posttest ( $p=0.000<0.05$ ).

According to the result of the 'Paired Samples t-Test' performed for the sum of all measures and the sum of all criteria, it was understood that there was a significant difference in favor of the posttest ( $p=0.000<0.05$ ). According to these results, the 10 exercises prepared by the researcher, aimed at support for playing AKZ; It has been understood that it contributes positively to the students' playing.

AKZ violin adaptation has been notated in order to bring a piece that includes both traditional elements and international violin performance techniques to the violin literature (Gülüm, 2020). For this reason, many musical terms and playing techniques were used in the adaptation. Although the criteria for inclusion in the study group included the all techniques in the piece, the pretest performances of the students remained quite low. While performing the violin adaptations of Turkish folk music melodies, it has been seen that not only the technical control of the instrument but also the makam, region, and of course the style characteristics of the related melody are important. It has also become clear that the adaptations that transfer the traditional elements of Turkish folk music melodies to the violin cannot be played without the exercises that help to understand these adaptations.

Today, these folk songs should be adapted using classical western music techniques and terms to be performed in individual instrument education courses included in the curriculum of many music education institutions, students

should be able to play these folk songs in the most appropriate way for its region style...Handling folk songs in detail, performing scale studies, and preparing exercises to solve the difficulties that can be encountered in performing will also positively affect the instrument teaching processes. In addition, examining folk songs both in terms of their form and performing them in instrument teaching processes will allow us to leave lasting effects on the globalization of our music culture (Demirci, 2013, p.127).

The necessity of preparatory exercises for violin adaptations originating from Turkish folk music and the background in this necessity; is strongly demonstrated through the violin AKZ adaptation in which traditional musical elements are transferred to the violin within the framework of the technical possibilities. Therefore, it is strongly recommended that such adaptations should also include preparatory exercises. Thus, it is thought that the number of preparatory studies for Turkish music performances in violin education will increase in the short term, and the number of methods containing original exercises and etudes will increase with the wide repertoire to be formed in the medium and long term. As a result of this; It is thought that the need for exercises and etudes originating from Turkish music in violin education will also be met which has been mentioned by many researchers for many years (Şen, 1992; Akpınar, 2002; Efe, 2007; Parasız, 2009; Demirci, 2013; Albuz and Gülüm, 2019).

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2

Ricochet

IV

III

I

II

III

II

I

III

I

II

III

III

Re telinde-----

rit.

III

I

3

The musical score consists of seven systems of music. The first system (measures 2-4) begins with a treble clef, a key signature of one flat, and a 4/4 time signature. It features a complex rhythmic pattern with many sixteenth notes and triplets. Fingerings are indicated by numbers 1-4 above notes. A 'Ricochet' effect is noted below the first measure. Chord diagrams for IV, III, and I are shown. The second system (measures 4-5) continues the pattern with similar fingerings and chord diagrams for I and II. The third system (measures 5-6) includes a measure with a 'V+' marking. The fourth system (measures 6-7) shows more intricate rhythmic patterns with fingerings like 4 1 and 4 1. The fifth system (measures 7-8) continues with similar patterns and fingerings. The sixth system (measures 8-9) includes a measure with a 'V+' marking and a 'Re telinde-----' marking. The seventh system (measures 9-10) includes a 'rit.' marking and a 'V+' marking. The score ends with a final measure containing a '3' and a 'V+' marking.





#### 4. First exercise for trills and ornaments

\*Alıştırma birim vuruş önce sekizlik sonra dördük olacak şekilde metronom ile çalışılmalıdır.

Her iki çalışma biçimi için önerilen başlangıç tempoları ♩=60 ve ♩=40 şeklindedir.

### Birinci Trill ve Çarpma Alıştırması \*



Aydın Kadioğlu Zeybeği İçin Alıştırmalar

Hazırlayan ve Notaya Alan: Ozan GÜLÜM

♩=60



## 5. Second exercise for trills and ornaments

\*Alıştırma birim vuruş önce sekizlik sonra dörtlük olacak şekilde metronom ile çalışmalıdır.

Her iki çalışma biçimi için önerilen başlangıç tempoları ♩=60 ve ♩=40 şeklindedir.

### İkinci Trill ve Çarpma Alıştırması\*



Aydın Kadioğlu Zeybeği İçin Alıştırmalar  
Hazırlayan ve Notaya Alan: Ozan GÜLÜM

♩=60



## 6. Glissando Exercise

\*Alıştırma birim vuruş önce sekizlik sonra dörtlük olacak şekilde metronom ile çalışmalıdır.  
Her iki çalışma biçimi için önerilen başlangıç tempoları ♩=60 ve ♩=40 şeklindedir.

### Glissando Alıştırması \*



Aydın Kadioğlu Zeybeği İçin Alıştırmalar  
Hazırlayan ve Notaya Alan: Ozan GÜLÜM

♩=60

Re telinde

2

3

## 7. Ricochet exercise

\*Alıştırma birim vuruş önce sekizlik sonra dörülük olacak şekilde metronom ile çalışmalıdır.  
Her iki çalışma biçimi için önerilen başlangıç tempoları  $\text{♩}=60$  ve  $\text{♩}=40$  şeklindedir.

### Ricochet Alıştırması \*



Aydın Kadioğlu Zeybeği İçin Alıştırmalar  
Hazırlayan ve Notaya Alan: Ozan GÜLÜM

$\text{♩}=60$

## 8. Grace notes exercise

\*Alıştırma birim vuruş önce sekizlik sonra dörflük olacak şekilde metronom ile çalışılmalıdır.  
Her iki çalışma biçimi için önerilen başlangıç tempoları ♩=60 ve ♩=40 şeklindedir.

### Geçiş Notalar Alıştırması\*



Aydın Kadioğlu Zeybeği İçin Alıştırmalar  
Hazırlayan ve Notaya Alan: Ozan GÜLÜM

♩=60

1  
2  
3  
4  
5  
6

## 9. Triplet exercises

\*Alıştırma birim vuruş önce sekizlik sonra dörlük olacak şekilde metronom ile çalışılmalıdır.

Her iki çalışma biçimi için önerilen başlangıç tempoları ♩=60 ve ♩=40 şeklindedir.

# Üçleme Alıştırması\*

Aydın Kadioğlu Zeybeği İçin Alıştırmalar  
Hazırlayan ve Notaya Alan: Ozan GÜLÜM

The musical score consists of six staves of music in 3/8 time. The first staff starts with a first ending (I) and a triplet of eighth notes. The second staff continues with triplets and a second ending (II). The third staff begins with a second ending (II) and a triplet of eighth notes. The fourth staff features a first ending (I) and a triplet of eighth notes. The fifth and sixth staves contain more complex triplet exercises with first and second endings. The score is written in treble clef with a key signature of one flat (B-flat).

## 10. Vibrato exercises

\*Bu özel vibrato biçimi çalışılırken ilk basılan parmak sıkıca tel üzerine yerleştirilir. Ardından gelen parmak tel üzerindeki parmağa bitişirilerek her salınmada yumuşakça tele temas etmesi sağlanır. Böylece iki parmağın yüzey alanının kullanılmasıyla normal vibratodan daha geniş aralıkta bir ses salınımı elde edilmiş olunur. Ağıştırma birim vuruş önce sekizlik sonra dörtdük olacak şekilde metronom ile çalışmalıdır. Her iki çalışma biçimi için önerilen başlangıç tempoları  $\text{♩}=60$  ve  $\text{♩}=40$  şeklindedir.

# VİBRATO ALIŞTIRMASI\*

Aydın Kadiođlu Zeybeđi İin Ağıştırmalar  
Hazırlayan ve Notaya Alan: Ozan GÜLÜM

The musical score consists of eight staves of music in 3/8 time, marked with a tempo of  $\text{♩}=60$ . The key signature has one flat (B-flat). The exercises are as follows:

- Staff 1: Starts with a quarter note G4, followed by a triplet of eighth notes (A4, B4, C5) marked with a '2' above the first note. This is followed by two measures of a continuous eighth-note triplet pattern (A4, B4, C5) under a slur.
- Staff 2: Starts with a quarter note G4, followed by a triplet of eighth notes (A4, B4, C5) marked with a 'V' above the first note. This is followed by two measures of a continuous eighth-note triplet pattern (A4, B4, C5) under a slur.
- Staff 3: Starts with a quarter note G4, followed by a triplet of eighth notes (A4, B4, C5) marked with a '2' above the first note. This is followed by two measures of a continuous eighth-note triplet pattern (A4, B4, C5) under a slur.
- Staff 4: Starts with a quarter note G4, followed by a triplet of eighth notes (A4, B4, C5) marked with a 'V' above the first note. This is followed by two measures of a continuous eighth-note triplet pattern (A4, B4, C5) under a slur.
- Staff 5: Starts with a quarter note G4, followed by a triplet of eighth notes (A4, B4, C5) marked with a '3' above the first note. This is followed by two measures of a continuous eighth-note triplet pattern (A4, B4, C5) under a slur.
- Staff 6: Starts with a quarter note G4, followed by a triplet of eighth notes (A4, B4, C5) marked with a 'V' above the first note. This is followed by two measures of a continuous eighth-note triplet pattern (A4, B4, C5) under a slur.
- Staff 7: Starts with a quarter note G4, followed by a triplet of eighth notes (A4, B4, C5) marked with a '4' above the first note. This is followed by two measures of a continuous eighth-note triplet pattern (A4, B4, C5) under a slur.
- Staff 8: Starts with a quarter note G4, followed by a triplet of eighth notes (A4, B4, C5) marked with a 'V' above the first note. This is followed by two measures of a continuous eighth-note triplet pattern (A4, B4, C5) under a slur.

## 11. Left-hand pizzicato exercise

\*Alıştırma birim vuruş önce sekizlik sonra dörtlük olacak şekilde metronom ile çalışmalıdır.  
Her iki çalışma biçimi için önerilen başlangıç tempoları  $\text{♩}=60$  ve  $\text{♩}=40$  şeklindedir.

### Sol El Pizzicato Alıştırması\*

Aydın Kadioğlu Zeybeği İçin Alıştırmalar  
Hazırlayan ve Notaya Alan: Ozan GÜLÜM

$\text{♩}=60$

The musical score consists of eight staves of music in 3/4 time, starting with a tempo of  $\text{♩}=60$ . The key signature has one flat (B-flat). The score is divided into four measures, each containing two staves of music. The first measure (measures 1-2) features a sequence of chords and single notes with fingerings 1, 2, 3, and 4. The second measure (measures 3-4) includes a triplet of eighth notes and a quarter note, with fingerings 1, 2, 3, and 4. The third measure (measures 5-6) contains a sequence of chords and single notes with fingerings 1, 2, 3, and 4. The fourth measure (measures 7-8) features a sequence of chords and single notes with fingerings 1, 2, 3, and 4. The score includes various rhythmic patterns, including triplets, eighth notes, and quarter notes, and is annotated with fingerings and articulation marks.