



Teaching the Turkish National Anthem to Foreign Students with Song Mapping Method

İstiklal Marşının Yabancı Öğrencilere Şarkı Haritalama Yöntemiyle Öğretilmesi

Muhammet BAŞOĞLU¹
Hatice ONURAY EĞİLMEZ²

¹Uludağ University, Faculty of Education,
Department of Fine Arts Education, Graduate Student, Bursa, Türkiye

²Uludağ University, Faculty of Education,
Department of Fine Arts Education, Bursa, Türkiye

ABSTRACT

The aim of this study was to determine the effectiveness of the song mapping method in teaching the Turkish National Anthem (İstiklal Marşı) to foreign students. Within this method, a map was designed by the researchers. The most fundamental feature of the map was its design to facilitate the memorization of the anthem's melody and lyrics, using rectangles to represent the pitch and duration of the notes and images to represent the lyrics. The study was conducted using a pre-test-posttest control group experimental design. The sample consisted of 30 foreign students enrolled at a middle school in Yalova, Türkiye. As the national anthem is frequently performed during school ceremonies, it was already familiar to the students. For the pretest, all students in both the experimental and control groups performed the anthem, and their performances were recorded. Following the pretest, the anthem was taught to the experimental group (n=15) using the song map, while the control group (n=15) received instruction through teacher echoing without the use of the map. The instruction was delivered over the course of four weeks, with one course hour per week. After the instruction period, the posttest was conducted by recording the students' performances once again. The performances of the students in both the pretest and posttest were evaluated by experts. In this evaluation, a rubric developed by the researchers in consultation with experts was used. The scores obtained from the rubric were analyzed using the Mann-Whitney U test and the Wilcoxon signed-rank test. The results of the study indicated that the instruction provided with the song map was more effective than the instruction provided without it.

Keywords: Independence march, music education, song map, Turkish national anthem, visual teaching material

ÖZ

Araştırmada yabancı öğrencilere İstiklal Marşı'nın öğretilmesinde kullanılan şarkı haritalama yönteminin etkiliğinin belirlenmesi amaçlanmıştır. Bu yöntemde araştırmacılar tarafından bir harita hazırlanmıştır. Bu haritanın en temel özelliği, notaların yükseklik ve süresini gösteren dikdörtgenler ile şarkı sözlerini gösteren görsellerin kullanılmasıyla marşın melodisi ve sözlerinin ezberlenmesini kolaylaştıracak şekilde tasarlanmış olmasıdır. Araştırma ön test ve son test kontrol grublu deneysel model doğrultusunda gerçekleştirilmiştir. Örneklem grubu Türkiye'deki Yalova ilinde bulunan bir ortaokulda öğrenim gören 30 yabancı öğrenciden oluşturulmuştur. Törenlerde seslendirilmesinden dolayı öğrenciler tarafından aşina olunan İstiklal Marşı, deney ve kontrol grubunda yer alan tüm öğrenciler tarafından seslendirilerek performansları kayıt altına alınmıştır. Bu yolla ön test verileri elde edildikten sonra İstiklal Marşı deney grubuna (n=15) harita kullanılarak öğretilirken, kontrol grubuna (n=15) harita kullanılmadan sadece eğitmen tarafından tekrarlanarak öğretilmiştir. Haftada bir ders saatı olmak üzere dört hafta süren eğitimden ardından deney ve kontrol grubu öğrencilerinin İstiklal Marşı performansları yeniden kamera kaydı ile kayıt altına alınarak son test verileri elde edilmiştir. Ön test ve son teste elde edilen deney ve kontrol grubu öğrencilerinin marş performansları uzmanlar tarafından puanlanmıştır. Bu değerlendirmede araştırmacılar tarafından uzman görüşü alınarak geliştirilen de-receli puanlama anahtarı kullanılmıştır. Puanlama sonucu elde edilen veriler Mann-Whitney U testi ve Wilcoxon testi ile analiz edilmiştir. Araştırma sonucunda deney grubuna harita ile uygulanan eğitimin kontrol grubuna uygulanan eğitime göre daha etkili olduğu görülmüştür.

Anahtar kelimeler: İstiklal marşı, müzik eğitimi, şarkı haritası, Türk milli marşı, görsel öğretim mäteriyali



Introduction

Throughout history, people have had to migrate to other countries for various reasons. Especially in recent years, millions of people have migrated to Türkiye. Indeed, as reported by the "United Nations High Commissioner for Refugees", Türkiye has welcomed over 4 million individuals seeking international and temporary protection (UNHCR, 2022). It is also recognized that a significant number of children have migrated to Türkiye and are continuing their education there (Sarıahmetoğlu, 2019). According to a report of "Ministry of National Education (MNE)" in 2021, a total of 928,485 foreign students who were between the ages of 5-17 were studying in Türkiye (MNE, 2021). In September 2023, the MNE disclosed that the total of foreign students receiving education in Türkiye had risen to 977,000 (Sözcü, 2023).

These students have gradually integrated into Turkish society after migrating to Türkiye. In the integration process, there were many negative factors that foreign students faced in schools due to cultural differences, language factors, etc. Especially in their first semester after migrating, the language problem led to many problems in foreign students' educational life. The studies conducted by Sarıtaş et al. (2016) and Takır and Özerem (2019) highlight that the primary problem faced by foreign students during the reintegration process is the "language barrier". Students who cannot speak the language of the country that they immigrated, fall behind in the achievements in the courses, and so academic failure becomes inevitable. In many studies it is found that the foreign students had encountered difficulties in understanding and achieving the subjects addressed in the courses (Sarıahmetoğlu & Kamer, 2020) and because of poor language their academic achievement suffered (Bulut et al., 2018; Şahin & Demirtaş, 2014).

This condition of foreign students is also observed in music lessons. In music lessons, the first requirement is to establish an effective communication between student-teacher and student-student. Therefore, foreign students with poor Turkish language face problems in music lessons too. Aksoy (2022), in his study based on the perspectives of music teachers, concluded that foreign students faced difficulties in adapting to the Turkish education system. He also found that language and communication barriers contributed to disciplinary problems and low engagement in music lessons. Music is a course that allows students to express themselves both individually and collectively where interaction is also abundant (Güven & Tufan, 2010). As music is a subject that demands active student participation in the classroom, behaviours such as timidity and reluctance to engage are commonly observed in the attitudes of foreign students towards the lesson. This situation is seen more frequently in activities such as singing and playing instruments solo. In his study, Kayacık (2020) emphasized that according to the views of foreign students' music teachers, these students experienced challenges in music classes and were often reluctant to sing. This situation of foreign students is observed not only while singing school songs or folk songs, but also while singing the Turkish National Anthem. In the music education curriculum of MNE, there are acquisitions of school songs, folk songs and national anthem at all grade levels. Among these acquisitions, the acquisitions related to the Turkish National Anthem are in the first place at all class levels (MNE, 2018). In the special targets of the music lesson curriculum, the sensitivity that should be shown to the Turkish National Anthem is clearly emphasized. Sonsel and Bilgin (2019) reported that the anthem is the initial teaching step of the music education curriculum and therefore has a significant role for Turkish music teachers in music lessons.

The Turkish National Anthem, its poem which was written by Mehmet Akif Ersoy and named as "Independence March" and composed by Osman Zeki Üngör, is always sung in official cere-

monies, celebrations, important days and meetings, as well as in schools every Monday and Friday during flag ceremonies. Therefore, the correct performance of the anthem is extremely important. Nevertheless, it is known that there have been some issues with performing the National Anthem. Akarsu (2021) claimed that many criticisms were made about these problems and one of the most criticized problems was about the composition of the anthem. Osman Zeki Üngör's composition has been criticized by musicians due to its large vocal range, the key and the prosody (harmony of vocal and lyrics) since its official acceptance. Due to the unequal number of syllables in Ersoy's poem, prosody is considered to be the most fundamental problem in Güngör's composition (Sonsel & Bilgin, 2019).

By analyzing the composition of the anthem structurally, it can be seen that the anthem has 12 bars and four phrases. Starting with an incomplete measure, the composition uses a total of six different note values such as crotchets, dotted quavers, semiquavers, dotted minims, double dotted crotchets and quaver triplets (Image 2). Regarding the relation between music and lyrics, there is an unbalanced distribution of verses to music. While four bars are allocated for the first verse of the poem, only two bars are assigned to the second verse, which contains a greater number of syllables (Image 1). This imbalance results in certain words being condensed into a very short duration. The first couplet constitutes 33.3% of the music, the second couplet 18.2%, the third couplet 24.2% and the fourth couplet 24.3% (Eyüboğlu, 2023). Eyüboğlu (2023) explains this word-structure relationship of the National Anthem in Image 1 below.

Image 1.

National Anthem Lyrics - Structure Relationship

1. BÖLME											
a1: mi minör						a2: la minör					
4	1	2	3	4	1	2	3	4	1	2	3
Kırk-	ma	si-	mez	bu-	şak-		lar-	da	yü-	zen	al-
1	2					3			4		

2. BÖLME											
a3: mi minör						Sol Major					
4	1	2	3	4	1	2	3	4	1	2	3
Sünmeden	yu-	ru-	em-	üm-	ü-	de-	te-	en-	so-	ca-	be-
5	6					7			8		

2. BÖLME											
a4: mi minör						V					
4	1	2	3	4	1	2	3	4	1	2	3
Yıldır-	ır-	pa-	la-	ya-	ıak	0	be-	nim-	dir-	-o-	cak
9	10						11		12		

In Image 1 and Image 2, the prosodic irregularity of the anthem is evident from the distribution of syllables in relation to the beats in the meter and the segmentation of the lyrics. It is evident that the anthem is theoretically simple but formally and rhythmically complicated. This situation causes difficulties while teaching the anthem. Indeed, Aydin (2006), who obtained the feedback of music teachers in his research on the Turkish National Anthem, reported that the problems faced while singing the anthem were mostly related to pitch and prosody. Components such as prosody, large intervals, rhythm, melody and key of the anthem are taken into consideration, learning the anthem may be difficult not only for Turkish students but also for foreign students having language and participation problems. Therefore, it is necessary

to consider new methods and techniques in teaching the Turkish National Anthem to foreign students, to enrich the teaching process with various materials and to utilize them to the extent possible.

Currently, it is known that in music education different methods and techniques are used for the skills that are aimed to be gained. The two most commonly used methods in teaching the songs are "teaching by ear" or in other words by "echoing the teacher" and "teaching with notes". Although these two methods which are widely used while teaching the songs have the same purpose, they have different characteristics. Teaching by notes requires more theoretical and technical knowledge but teaching by ear is a simpler method. In these two methods, materials supported by graphics, symbols and visuals can be used. Materials which are supported with graphics and symbols are especially used in the perception of the note values and pitches (Türkmen, 2021).

Some research data indicated that the individuals learn mostly visual and more than 80% of them realize visually (Kaya, 2006). Jerome Bruner (as cited in Conway, 2007) argues that children learn a subject matter by moving through the stages of enactive, iconic, and symbolic and that they can learn any concept as long as these three terms are developmentally appropriate. According to Eunice Boardman (as cited in Munroe, 2018), the first individual to apply Bruner's theories to music education, a concept must be presented at the enactive level, subsequently advance to the iconic and symbolic levels, regardless of learner's level of grade. According to Bruner (as cited in Mcleod, 2024) initially, children learn better using an enactive mode of representation but when they grow older, they become more confident in using an iconic mode of representation where visual summarization of images is done. John Dewey (as cited in Ördekçi, 2016) also states that visual materials are effective methods in education and emphasizes the importance of using them. For Aydemir Özürt (2016) visual materials are very influential in teaching abstract and complex concepts that require time to understand. According to Seferoğlu (2013), visual elements are useful in terms of attracting and maintaining attention, assisting individuals to concretize concepts. Also, they are simple, more understandable and can be easily memorized. Similarly, Ördekçi (2016) highlights that visual materials positively impact education and training by facilitating learning, enhancing students' comprehension, and promoting long-term retention of knowledge. This situation underscores the significance of utilizing visual materials in education and demonstrates the necessity for more frequent incorporation of such resources to foster a more effective learning environment.

In music education, as in all education branches, using visual materials is regarded as essential when teaching songs, particularly for young students and beginners who are not familiar with musical notation. Students learning by visual materials learn abstract concepts more effectively by seeing them in a perceptible way. This makes the lesson more interesting and entertaining. Visual representations, which necessitate the integration of sight, touch, hearing, and cognitive processes, are also fundamentally connected to the development of musical skills and the building of those abilities (Blair, 2008). Şen (2021) emphasized the importance of visual materials in terms of making sense of music, which is an abstract concept in line with today's contemporary educational approaches. According to Şen (2021), there is a demand for these materials, and one type of visual resource that can be employed to meet this need is music maps enhanced by graphics and symbols. Such maps are expressed with different names such as "listening map", "memory map", "song map", "cognitive music map", "musical mind map", "musical symbol map", "graphical music maps", "work analysis map", "animated musical concept map" etc. Shockley (2006) finds that these maps can be an efficient way to memorize the music. According to Weyde and

Wissmann (2004) mapping can be an adequate tool for handling information on musical structures. Also, according to Shockley and Colgin Abeln (n.d.) mapping helps to achieve brain/intellectual memory, which increases reliability.

By analyzing 12 music maps with unique characteristics, Şen (2021) concluded that these maps are original and innovative resources that can be effectively utilized in music education. Yiğit and Özeke (2020) carried out a study to evaluate the effectiveness of song maps created with graphics, symbols, and images while teaching songs. This research concluded that students' success in learning school songs with song maps was higher. Moreover, it has been revealed that these maps can have positive impacts on pupils and are effective materials in terms of increasing permanence in the mind.

In this context, it is considered that the Turkish National Anthem, which is difficult to learn even for Turkish students due to the features explained above, is very difficult to learn by foreign students who do not know Turkish or hardly speak Turkish. It is believed that the use of materials whose effects have been demonstrated by researchers can be useful in solving this situation perceived as a problem. For a map called "a visual/musical Independence March map" (Image 3) was developed by researchers, inspired by the studies in the literature. Using this map, a model that is believed to facilitate foreign students' learning of the Turkish National Anthem was tested. In Image 2 the music of the Turkish National Anthem can be seen.

Image 2.

Turkish National Anthem (Independence March)

İstiklal Marşı

Besteci: Osman Zeki Üngör
Şair: Mehmet Akif Ersoy

Tempo di Marcia

To be more understandable the translated lyrics of national anthem are given below.

Translated Lyrics of National Anthem

Verse 1: "Fear not, the crimson flag, waving in these dawns will never fade."

Verse 2: "Before the last hearth that is burning in my nation vanishes."

Verse 3: "That is my nation's star, it will shine;"

Verse 4: "That is mine, it belongs solely to my nation."

Verse 5: "Oh coy crescent do not frown for I am ready to sacrifice myself for you!"

Verse 6: "Please smile upon my heroic nation, why that anger,

why that rage?"

Verse 7: "If you frown, our blood shed for you will not be worthy."

Verse 8: "Freedom is the right of my nation who worships God and seeks what is right."

Image 3.

Visual/Musical Independence March Map

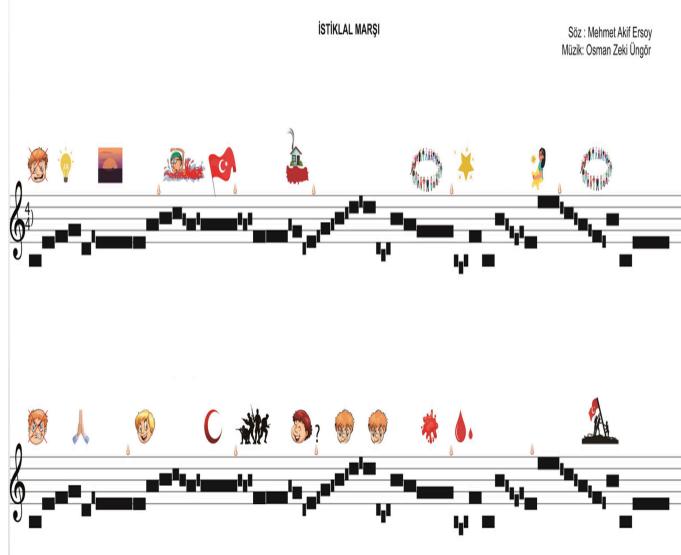


Image 3 displays the visual/musical Independence March map that was utilized to teach the anthem to the experimental group. To give clues about the lyrics, symbols compatible with the lyrics have been used in the map. The first symbol on the first staff symbolizes a face of a person that shouldn't be afraid (Verse 1). The lamp symbolizes the flag that will never fade (Verse 1). The next picture was chosen to symbolize the dawn (Verse 1). The swimming person indicates the waving action of the flag (in Turkish the word "yüzmek" means to swim, Verse 1). The house symbolizes the last hearth (Verse 2). The group of people indicates the nation, and the shining star was chosen to represent the sentence "That is my nation's star, it will shine" (Verse 3). The girl holding the star indicates that the star (attributing the flag) belongs to her and the group of people indicates the nation and that the flag belongs to them (Verse 4). The first picture on the second staff is a frowning boy. Two hands praying means that "I am ready to sacrifice myself for you" (Verse 5). The smiling face, the fighting soldiers and the question mark give clues about the sentence "Please smile upon my heroic nation, why that anger, why that rage?" (Verse 6). The frowning boy and the blood give clues for the sentence "If you frown, our blood shed for you will not be worthy" (Verse 7). The last flag indicates the freedom in the last verse (Verse 8) "Freedom is the right of my nation who worships God and seeks what is right".

Purpose

In the study, it was aimed to state to what extent visual/musical Independence March map prepared by the researchers was effective while teaching the Turkish National Anthem to foreign students. For this purpose, the following questions were explored.

1. Is there a significant difference between the pre-test and post-test scores of students in the control and experimental groups?
2. How do the abilities of students in the control and experimental groups to perform the Turkish National Anthem compare before and after the training?

Importance

This research includes a model used in teaching the Turkish National Anthem to foreign students who do not speak the Turkish language or speak little Turkish. Teaching the anthem is the first acquisition at each grade level of music lesson curriculum. In this condition, the study is regarded as significant for its contribution to the literature, as it represents the first model implemented for teaching the Turkish National Anthem in Türkiye. It is believed that this new approach that can be used to teach the anthem will contribute to the literature and will bring innovation to music education.

Methodology

Research Model

In the study, an experimental design featuring a pretest-posttest approach along with a control group was employed. According to Karasar (2012), "the experiments with the highest scientific value are real experimental models. In the pretest-posttest control group model, two groups are formed through random assignment, with one serving as the experimental group and the other as the control group. Before and after the experiment, assessments are conducted in both groups." Therefore, the model was considered to be suitable for this research.

Ethics committee approval was received for this study from the ethics committee of Bursa Uludağ University (Date: December 23, 2022, Session Number: 2022-11; Decision No: 99).

Participant consent was obtained from the participants who participated in this study.

Study Group

The study group comprised 30 foreign students (n=15 female, n=15 male) of Iraqi, Egyptian, and Sudanese nationalities, who were enrolled at HÜdaverdi Aydin Secondary School in Çınarcık, Yalova, Türkiye. These students, who were in the grades between 5-8, were assessed by the school's Turkish teacher and classified into two groups: those who do not speak Turkish at all and those who possess some basic proficiency in the language. The allocation of students to the groups (experimental group n=15 / control group n=15) was carried out using a neutral assignment method, ensuring that both groups were equally balanced in terms of language proficiency.

Data Collection Tool

The researchers developed a rubric to collect the data by taking the opinions of experts (appendix 1). This rubric was utilized to assess the students' pre-test and post-test results in both the experimental and control groups. Utilizing this rubric for both the pretest and posttest, the anthem's recorded performances by the students were evaluated by three additional experts. One expert was a vocal trainer and the other one was a piano trainer in the Bursa Uludağ University Music Education Department. The third expert was a music teacher working in a secondary school.

The experts evaluated the students' performances according to four skills. For each skill (pitch=singing the correct pitch, duration=singing the note values correctly, tempo=singing in correct tempo, lyrics=singing the lyrics correctly) experts scored the students skills between 1 and 5 points. The scores obtained separately from the four skills were averaged again to obtain a single score for the four skills. The lowest score that could be obtained in the average score was 4, while the highest score was 20. These scores have been converted out of 100 to facilitate evaluation. In this instance, the minimum score was 20, while the maximum score was 100. Furthermore, as the scores were provided by three different evaluators, the final scores were determined by averaging the ratings from all three evaluators.

Data Collection and Analysis

Permission for the investigation was given by "Bursa Uludağ University Social and Humanities Research and Publication Ethics Board" (Session Date: December 23, 2022; Session Number: 2022-11; Decision No: 99). To find out whether a difference existed between the groups, the pre-test results were analyzed using the Mann-Whitney U test (Table 1). The results indicated that there was no significant difference between the control and experimental groups ($p > .835$).

Table 1.
The Result of Mann Whitney U Test

Control and Experimental Groups	N	Mean Rank	Mann-Whitney U test	p value
Control	15	15.17		
Experimental	15	15.83	107.500	.835

Students in both groups practiced the anthem once a week for four weeks. Before beginning the practice sessions, students in both groups were asked to sing the Turkish National Anthem to assess their current ability to perform the anthem. Their performances were recorded on video. Experimental group students were instructed the anthem using the visual/musical Independence March Map (Image 2).

The map was created in collaboration with a graphic designer and modelled in a computerized format. The most basic feature of the map, which was supported by various visuals to keep the lyrics and the melody of the anthem in mind, was the rectangles depicting the pitches and the values of the notes and the images defining the lyrics. A total of six types of note values used in the anthem were proportionally adjusted according to their values. This was aimed to ensure that the values were seen and perceived more concretely according to the size of the rectangles. It was thought that the pitches would be perceived better if the rectangles placed on staff were enlarged and prominent.

A smart board was used to enable the experimental group students to see the map better and a printed map was given to each student. In the control group, one of the researchers who is a music teacher sang the anthem and the students echoed him without using any supportive material. In both groups the lyrics were taught aurally.

At the conclusion of the four-week period, students from both the control and experimental groups were asked to sing the anthem again. Their performances were recorded. Both the recorded pre-test and post-test videos were submitted to two academic experts and a music teacher for evaluation based on the rubric. The data collected from the expert evaluations were entered into the SPSS 23 (IBM SPSS Corp., Armonk, NY, USA) statistical software, and the results were subsequently tabulated.

Results

Evaluations for this section were made based on the overall average score.

Findings Related to the First Research Question

To determine whether there was a significant increase between the pre-test and post-test scores of the control and experimental groups, the Wilcoxon test, a dependent sample test, was conducted, as the students who participated in both the pretest and

posttest were considered a dependent sample. Descriptive statistics are given below in Table 1 and Table 2.

Table 2.
Comparison of Pre-Test and Post-Test Results for Control Group

Control Group	N	Mean	Min	Max	Test Sta-	Asymp. Sig.
					statistics ²	(2-tailed)
Pretest	15	35.5600	21.70	53.30		
Posttest	15	47.8733	26.70	60.00	-3.413	<.001

Descriptive statistics indicated that the average score for the control group in the pretest was 35.56 points, while the average score in the posttest rose to 47.87 points. When the significance of this difference between the scores was tested, it was seen that the result was $p < .001$ (Table 2). This finding indicates that there was a statistically significant difference between the pre-test and post-test scores in the control group.

Table 3.
Comparison of Pre-Test and Post-Test Results for the Experimental Group

Experimental Group	N	Mean	Min	Max	Test Sta-	Asymp. Sig.
					statistics ^a	(2-tailed)
Pretest	15	38.2333	20.00	66.70		
Posttest	15	58.8800	31.70	80.00	-3.410	<.001

Descriptive statistics revealed that the average score for the experimental group in the pretest was 38.23 points, while the average score in the Table 3 posttest increased to 58.88 points. When the significance of this difference between the scores was tested, it was seen that the result obtained was $p < .001$ (Table 3). This result indicates that there was a statistically significant difference between the pre-test and post-test scores in the experimental group. It was revealed that the training given in the experimental group, as expected, also created a statistically significant difference.

Findings Related to the Second Research Question

To assess the impact of the map on skill development (including pitch, duration, tempo consistency, and lyrical accuracy), students' performances of the Turkish National Anthem in both the control and experimental groups were evaluated before and after the training. Evaluations made separately based on pitch, duration, integrity of tempo and lyrics are given in Tables 4 and 5.

Table 4.
Comparison of Pretest-Posttest for the Control Group

Control Test Group		Mean	Min	Max	Test Sta-	p value
	Pretest	31.11	20.00	46.70		
Pitch	Posttest	39.56	26.70	53.30	-3.201	.001
	Pretest	36.44	20.00	60.00		
Duration					-3.191	.001
	Posttest	49.34	26.70	66.70		
	Pretest	41.34	20.00	66.70		
Lyrics					-3.426	<.001
	Posttest	57.32	26.70	80.00		
Integrity of tempo	Pretest	33.34	20.00	53.30		
					-3.319	<.001
	Posttest	45.32	26.70	53.30		

The Wilcoxon test was again used to make this comparison. Descriptive statistics indicated that the average score for the control group in the pretest for singing the anthem in the correct pitch was 31.11 points, while the post-test score increased to 39.56 points. When the significance of this difference between the scores was tested, it was seen that the result obtained was $p = .001$. This finding indicates that there was a statistically significant difference between the pre-test and post-test scores of the control group in the pitch category. In other words, it can be concluded that the instruction provided to the control group students, conducted without the use of the map, enhanced their ability to sing the anthem in the correct pitch.

Likewise, the pre-test results for singing the anthem with correct note values in the control group revealed an average score of 36.44 points, which increased to 49.34 points in the posttest. When the significance of this difference between the scores was tested, it was seen that the result obtained was $p = .001$. This result indicates that there was a statistically significant difference between the pre-test and post-test scores in the duration category for the control group. In other words, it can be concluded that the instruction provided to the control group students, conducted without the use of the map, enhanced their ability to accurately sing the note values of the anthem.

According to the statistics gathered in the lyrics category, which assessed the students' ability to perform the anthem's lyrics correctly, the average pre-test score for the control group was 41.34 points, while the post-test score increased to 57.32 points. When the significance of this difference between the scores was tested, it was seen that the result obtained was $p < .001$. This result indicates that there was a statistically significant difference between the pre-test and post-test scores in the control group. In other words, it can be concluded that the instruction provided to the control group students, conducted without the use of the map, enhanced their ability to sing the lyrics of the anthem accurately.

Finally, the results in the integrity of tempo category, which evaluated the students' ability to perform the anthem at the correct tempo, revealed that the average score for the control group in the pretest was 33.34 points, while the post-test score increased to 45.32 points. When the significance of this difference between the scores was tested, it was seen that the result obtained was $p < .001$. This result indicates that there was a statistically significant difference between the pre-test and post-test scores in the control group. In other words, it can be concluded that the instruction provided to the control group students, conducted without the use of the map, enhanced their ability to sing the anthem at the correct tempo.

Table 5.
Comparison of Pre-Test Post-Test Results for the Experimental Group

Experi-mental Group	Test	Mean	Min	Max	Test Sta-tistics	p value
Pitch	Pretest	32.00	20.00	53.30		
	Posttest	50.24	26.70	66.70	-3.194	.001
Duration	Pretest	41.78	20.00	66.70		
	Posttest	58.66	26.70	80.00	-3.044	.002
Lyrics	Pretest	44.88	20.00	80.00		
	Posttest	68.89	33.30	100	-3.423	<.001
Integrity in tempo	Pretest	34.23	20.00	66.70		
	Posttest	57.77	26.70	93.30	-3.334	<.001

The Wilcoxon test, a dependent sample test, was also employed to compare the pre-test and post-test scores in the experimental group. Descriptive statistics indicated that the average score for the experimental group in the pretest for singing the anthem in the correct pitch was 32.00 points, while the post-test score increased to 50.24 points. When the significance of this difference between the scores was tested, it was seen that the result obtained was $p = .001$. This result indicates that there was a statistically significant difference between the pre-test and post-test scores in the pitch category for the experimental group as well. In other words, it can be concluded that the instruction provided to the experimental group students using the map enhanced their ability to sing the anthem in the correct pitch.

Similarly, the statistics obtained in the duration category (which evaluated the ability to sing the note values correctly) for the experimental group revealed an average score of 41.78 points in the pretest and 58.66 points in the posttest. When the significance of this difference between the scores was tested, it was seen that the result obtained was $p = .002$. This result indicates that there was a statistically significant difference between the pre-test and post-test scores in the experimental group regarding the ability to sing the note values correctly. In other words, it can be concluded that the instruction provided to the experimental group students using the map enhanced their ability to accurately sing the note values of the anthem.

In the pre-test results for the lyrics category, the average score was 44.88 points, while the post-test score increased to 68.89 points. When the significance of this difference between the scores was tested, it was seen that the result obtained was $p < .001$. This result indicates that there was a statistically significant difference between the pre-test and post-test scores in the experimental group regarding the ability to sing the lyrics of the anthem accurately. In other words, it can be concluded that the instruction provided to the experimental group students using the map enhanced their ability to accurately sing the lyrics of the anthem.

Finally, the results in the integrity of tempo category revealed that the average score for the experimental group in the pretest was 34.23 points, while the post-test score increased to 57.77 points. When the significance of this difference between the scores was tested, it was seen that the result obtained was $p < .001$. This result indicates that there was a statistically significant difference between the pre-test and post-test scores in the experimental group regarding the ability to sing the anthem at the correct tempo. In other words, it can be concluded that the instruction provided to the experimental group students using the map enhanced their ability to sing the anthem at the correct tempo.

It is seen that the results obtained with the posttest performed after the training in both groups created statistically significant differences. Taking into account the results obtained in the four categories, it was concluded that the average scores in the experimental group increased significantly more after the training compared to the control group across all categories. In other words, it can be concluded that the instruction provided to the experimental group students using the map more effectively enhanced their ability to sing the anthem.

Discussion and Conclusion

The experimental research demonstrated the impact of the visual/musical Independence March map on enhancing the success of foreign students in learning the Turkish National Anthem. As a result of the experimental process conducted with 30 foreign students at Hüdaverdi Aydin Secondary School in Çınarcık, Yalova, Türkiye, the findings revealed the following results:

As expected, a significant increase was observed in the pre-test

and post-test scores of students in both the experimental and control groups following the four-week training period. The significant difference in both groups can be attributed to the fact that the anthem was taught to both groups. Upon examining the pre-test scores of both groups, it was found that their scores were quite similar, with the control group averaging 35.56 points and the experimental group averaging 38.23 points. However, the post-test average scores of both groups showed a noticeable difference, with the control group averaging 47.87 points and the experimental group averaging 58.88 points. In the control group, where the anthem was taught only by echoing the teacher without the use of the map, the difference between the pre-test and post-test average scores was approximately 12 points. In contrast, the experimental group, which learned the anthem using the map, experienced a difference of 20 points. In this case, it can be said that the map was more effective in learning the anthem. As a matter of fact, Yiğit and Özke (2020) reached a similar conclusion in their study with 4th grade primary school students using song maps in teaching school songs. Also, the authors revealed the necessity of such maps in terms of music education.

The findings revealed that there was a significant difference between the pre-test and post-test scores in both the experimental and control groups regarding specific skills in performing the anthem. Notably, improvements were observed in the students' abilities to sing the lyrics correctly, perform the anthem at the correct tempo, sing in the correct pitch, and execute the note values accurately. In this case, it can be said that the students' skills while performing the anthem were improved in both groups. An analysis of the average scores for each group indicated that, both in the pretest and posttest, students achieved their highest scores in the ability to sing the lyrics of the anthem. It is assumed that the reason for this situation was that they sang it at least twice a week, each Monday and Friday. However, when comparing the improvement of this skill between the control and experimental groups, it is evident that students in the experimental group, who benefited from the visual symbols on the map as reminders for the lyrics, showed greater improvement. Specifically, the experimental group's pre-test score for lyrics was 44.88, rising to 68.89 in the posttest, while the control group started at 41.34 and increased to 57.16. Additionally, it can be concluded that other skills, such as singing the anthem with correct pitch and note values, also showed greater improvement in the experimental group. For instance, in terms of pitch, the experimental group had a pre-test score of 32.00, which increased to 50.24 in the posttest, while the control group improved from 31.11 to 39.56. Similarly, regarding duration, the experimental group scored 41.78 in the pretest and 58.66 in the posttest, whereas the control group increased from 36.44 to 49.39. This can be attributed to the rectangles on the map that symbolize note values and pitch.

It was found that the lowest average skill for both groups, both in the pretest and posttest, was in performing the anthem with correct pitch. This suggests that while improvements were observed across various skills, achieving accuracy in pitch remains a challenge for the students. It is believed that the reason why the skill of performing the pitches had the lowest average score was because the students were not chosen by testing their talents and have not received any ear training. When looking at both groups, it was seen that the post-test average scores for each skill increased compared to the pre-test average scores. This situation can be attributed to the training provided to both groups; however, the greater increase in average scores across each skill in the experimental group suggests that students who learned with the map demonstrated superior performance in these skills compared to the control group.

In modern music education, it is known that there are many methods and techniques used within the scope of contempo-

rary educational approaches. The method, which is defined as the process used to reach a goal; in today's constructivist education approach, it should be used in a way that considers approaches such as student-centered, interesting, arousing curiosity, etc. Tan (2006) stated that in the teaching process, the methods and techniques used in the lesson should be constantly enriched and the lesson should be structured by considering the components such as class level, students' status, lesson duration, individual differences, lesson objectives, etc. With this in mind, it can be concluded that for learning to be more effective, it is essential to incorporate visual materials enhanced by elements like graphics, symbols, and pictures, along with music maps. These tools are particularly beneficial for young learners and foreign students, who comprised the study group in this research. Integrating methods such as singing, listening, and musical mind maps alongside traditional approaches like teaching by ear and using notation can significantly enhance the learning experience for school songs, folk songs, and marches. Thus, both the findings of this study and the results of previous research reinforce the importance of integrating visual materials and innovative teaching methods in music education. These approaches can facilitate better learning outcomes and engagement among students, particularly for those in diverse educational contexts.

In accordance with the results mentioned above; it can be said that the mapping method, which is a new model experiment in teaching the Turkish National Anthem, is an effective method. Similarly, Şen (2021) and Yiğit and Özke (2020) describe these maps as innovative and unique resources that can be effectively employed in music education, enhancing the learning experience for students.

Recommendations

In consideration of the research's results the following recommendations were provided.

1. These materials can be used especially at the very beginning of music education.
2. In the teaching of school songs, folk songs and marches, similar types of maps can be produced, especially for younger students.
3. The Turkish Ministry of National Education could incorporate these maps into the music curriculum and textbooks, promoting their use in educational settings.
4. Music teachers could be offered in-service training, seminars, and workshops to encourage the active incorporation of these maps into their lesson plans.
5. Such materials can be added to the content of courses such as Music Teaching Methods in the curriculum of music teacher training institutions.
6. This model, which has been tested with foreign students, can also be experimented with Turkish students and new research could be conducted to reveal the effectiveness of the applied model on Turkish students.
7. In addition to general music education, these types of maps can be effectively utilized in both amateur and vocational music training programs.
8. To stimulate individual learning and emphasize students' creativity, students can be requested to create their own music maps.
9. Not only in music lessons, but also in lessons such as mathematics and language etc, similar mapping methods can be used to enrich learning processes.
10. Several mapping techniques can also be used for instrument education.
11. Instructional technology material design courses in faculties of education can be restructured to include these maps.
12. This study was conducted with a limited sample of students (n=30). Further research involving larger student groups could

strengthen the generalizability of the findings.

13. The present study was conducted over a four-week instructional period. Future studies exploring the long-term effects of the song mapping method may offer valuable information regarding its sustainable application.

14. The role of students' diverse cultural backgrounds in the process of learning the Turkish National Anthem was not comprehensively analyzed in this study. Future research focusing on this dimension may provide greater depth to the results.

Ethics Committee Approval: Ethics committee approval was received for this study from the ethics committee of Bursa Uludağ University (Date: December 23, 2022, Session Number: 2022-11; Decision No: 99).

Informed Consent: Participant consent was obtained from the participants who participated in this study.

Peer-review: Externally peer-reviewed.

Author Contributions: Concept; M.B.-H.O.E. - Design; M.B.-H.O.E. - Supervision; H.O.E., - Findings; M.B. - Materials; M.B.-H.O.E.. - Data Collection and/or Processing; M.B.. - Analysis and/or Interpretation; M.B. - Literature Search; M.B.. - Writing Manuscript; M.B. - Critical Review; H.O.E.

Conflict of Interest: The authors have no conflicts of interest to declare.

Financial Disclosure: The authors declared that this study has received no financial support.

Etki Komite Onayı: Bu çalışma için etik komite onayı Bursa Uludağ Üniversitesi'nden (Tarih: 23 Aralık 2022, Oturum Numarası: 2022-11, Karar Numarası: 99) alınmıştır.

Katılımcı Onamı: Katılımcı onamı bu çalışmaya katılan katılımcılardan alınmıştır.

Hakem Değerlendirmesi: Dış bağımsız.

Yazar Katkıları: Fikir; M.B.-H.O.E. - Tasarım; M.B.-H.O.E. - Denetleme; H.O.E., - Finansman; M.B. - Materyaller; M.B.-H.O.E.. - Veri Toplanması ve/veya İşleme; M.B.. - Analiz ve/veya Yorum; M.B.. - Literatür Taraması; M.B.. - Yazılı Yazan; M.B.. - Eleştirel İnceleme; H.O.E.

Çıkar Çatışması: Yazarlar, çıkar çatışması bildirmemişlerdir.

Finansal Destek: Yazarlar, bu çalışma için finansal destek almadığını beyan etmiştir.

References

Akarsu, S. (2021). İstiklal Marşı ve içmasına yönelik bir analiz çalışması. *Turkish Studies-Language & Literature*, 16(5), 1-35. <https://dx.doi.org/10.7827/TurkishStudies.52875>

Aksoy, Y. (2022). Müzik öğretmenlerinin geçici koruma statüsündeki öğrencilerin müzik eğitimine yönelik görüşleri. *MSGÜ Sosyal Bilimler Dergisi*, 2(26), 439-458, <http://doi.org/10.56074/msgsusb.1175885>

Aydin, R. (2006). *Türkiye'de ortaöğretim kurumlarında İstiklal Marşı söyleme ve yönetme problemleri*. (Publication No: 191116) [Master dissertation, Gazi Üniversitesi]. Council of Higher Education, Thesis Center <https://tez.yok.gov.tr/UlusalTezMerkezi/tezDetay.jsp?id=NoM-FvumG4Rday8js4UY3og&no=WxLW235qZaxiOPgXME574g>

Aydemir Özurt, E. (2016). *Dördüncü sınıf Türkçe Dersi Öğretim Programının görsel okuma ve sunu becerilerini geliştirmeye açısından incelemesi*. (Publication No: 421737) [Master dissertation, Bartın Üniversitesi]. Council of Higher Education, Thesis Center file:///C:/Users/DELL/Downloads/421737.pdf

Blair, D. V. (2008). Do you hear what I hear? Musical maps and felt pathways of musical understanding. *Visions of Research in Music Education*, 11(5), 1-23

Bulut, S., Kanat Soysal, Ö. & Gülcücek, D. (2018). Suriyeli öğrencilerin Türkçe öğretmeni olmak: Suriyeli öğrencilerin eğitiminde karşılaşılan sorunlar. *Uluslararası Türkçe Edebiyat Kültür Eğitim Dergisi*, 7(2), 1210-1238.

Conway, T. R. (2007). *The Praeger Handbook of Education and Psychology, Volumes 1-4*. Joe L. Kincheloe and Raymond A. Horn, Jr. (Ed.), *Jerome Bruner* (pp. 56-61). Praeger Publishers.

Güven, E., & Tufan, E. (2010). Kaynaştırma sınıflarında iş birlikli öğrenme yöntemi ile müzik dersleri. *Uludağ Üniversitesi Eğitim Fakültesi Dergisi*, 23(2), 557- 573

Karasar, N. (2012). *Bilimsel araştırma yöntemleri*. (23. baskı). Nobel Yayınevi

Kaya, Z. (2006). *Öğretim teknolojileri ve materyal geliştirme*. (2. Baskı). Pe- gem A Yayıncılık

Kayacık, B. A. (2020). *Suriyeli öğrencilerin eğitimine yönelik öğretmen görüşleri*. [Mastering Project, Pamukkale Üniversitesi] <https://gcris.pau.edu.tr/bitstream/11499/35155/1/Baha%20Erdem%20KAYACIK.pdf>

McLeod, S. (01.02.2024). *Jerome Bruner's theory of learning and cognitive development*. <https://www.simplypsychology.org/bruner.html>

MNE.(2018,23 Ocak).T.C.Milli Eğitim Bakanlığımüzükdersiöğretimprogramı. <https://mufredat.meb.gov.tr/Dosyalar/2018129173048695-1-8%20M%C3%BCzik%20%C3%96%C4%9Fretim%20Program%C4%B1%2020180123.pdf> adresinden 15 Şubat 2024 tarihinde alınmıştır.

MNE, Millî Eğitim Bakanlığı Hayat Boyu Öğrenme Genel Müdürlüğü. (2021). *İzleme ve Değerlendirme Raporu*. https://hbogm.meb.gov.tr/meb_iys_dosyalar/2022_04/15173151_HBOGM_Yzleme_ve_DeYerlendirme_Raporu-2021.pdf

Munroe, A. (2018). *Elunice Boardman's Generative Theory of Musical Learning and the Holt Music Textbooks*. *Journal of Historical Research in Music Education*, 39(2) 195-214. DOI: 10.1177/1536600617697437

Sariahmetoğlu, H. (2019). *Yabancı uyruklu öğrencilerin eğitim sistemine uyumda karşılaşılan sorunlar ve çözüm önerileri*. (Publication No: 564900) [Master dissertation, Kastamonu Üniversitesi] Council of Higher Education, Thesis Center file:///C:/Users/DELL/Downloads/564900.pdf

Sariahmetoğlu, H., & Kamer, T. S. (2020). *Yabancı uyruklu ortaokul öğrencilerin eğitim sürecinde karşılaştıkları sorunlara ilişkin görüşleri*. *Elektronik Sosyal Bilimler Dergisi*, 19(76), 1611-1630.

Sarıtaş, E., Şahin, Ü., & Çatalbaş, G. (2016). *İlkokullarda yabancı uyruklu öğrencilerle karşılaşılan sorunlar*. *Pamukkale Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 25(1), 208-229.

Shockley, R. (2006). *Mapping music: Some simple strategies to help students learn*. *American Music Teacher*, 56(2), 34-40.

Shockley, R. & Colgin Abeln, M. (n.d.). *The memory map for music*. The memory map for music. Retrieved from <https://www.memorymapformusic.org/>

Sonsel, Ö. B. & Bilgin, S. (2019). *Ön elemeyi geçen İstiklal Marşı bestelinin eğitim müziği açısından incelenmesi*. *Gazi Üniversitesi Eğitim Fakültesi Dergisi*, 39(3), 1827- 1850.

Sözcü, (16.09.2023). *Milli Eğitim Bakanı, Suriyeli öğrenci sayısını açıkladı*. <https://www.sozcu.com.tr/milli-egitim-bakani-suriyeli-ogrenci-sayisi-ni-acikladi-wp7804451>

Şahin, M. & Demirtaş, H. (2014). *Üniversitelerde yabancı uyruklu öğrencilerin akademik başarı düzeyleri, yaşadıkları sorunlar ve çözüm önerileri*. *Milli Eğitim Dergisi*, 44(204), 88-113

Şen, E. (2021). *Sembolik ve grafiksel gösterimleriyle müzik haritaları üzerine bir analiz*. *Eğitim ve Bilim*, 46 (207), 439-463

Takır, A. & Özerem, A. (2019). Göçle gelen yabancı uyruklu öğrencilerin okul ortamında karşılaştıkları sorunlar. *Folklor/Edebiyat*, 25(97), 639-657.

Tan, Ş. (2006). *Öğretimi Planlama ve Değerlendirme*. Pegem Akademi

Türkmen, E. F. (2021). *Müzik Eğitiminde Öğretim Yöntemleri* (8. Baskı). Pegem Akademi

UNHCR The UN Refugee Agency, (2022). *Türkiye bilgi notu*. <https://www.unhcr.org/tr/wp-content/uploads/sites/14/2022/11/Bi-annual-factsheet-2022-09-Turkiye.pdf>

Yiğit, Ç., & Özke, S. (2020). *Grafik, sembol ve resimlerden yararlanılarak oluşturulan şarkı haritalarının okul şarkılarının öğretimindeki başarıya etkisi*. *Eğitim ve Bilim*, 45(202), 345-362

Weyde, T., & Wissmann, J. (2004). *Visualization of musical structure with maps*. Paper presented at the Proceedings of the Conference on Interdisciplinary Musicology, Graz, Austria.

Image References

Image 1.

Eyüboğlu, Y. C. (2023). *İstiklal Marşı'nın yapısal analizi* [Structural Analysis of İstiklal Marşı (Independence Anthem of Türkiye)]. *Sosyal Bilimler Dergisi*, 9(1), 77-88

Image 2.

Eyüboğlu, Y. C. (2023). *İstiklal Marşı'nın yapısal analizi* [Structural Analysis of İstiklal Marşı (Independence Anthem of Türkiye)]. *Sosyal Bilimler Dergisi*, 9(1), 77-88

Appendix 1

RATED SCORING KEY FOR TURKISH NATIONAL ALTHEM'S PERFORMANCE

Structured Abstract

Tarih boyunca insanlar çeşitli sebeplerden dolayı başka ülkelere göç etmek zorunda kalmışlardır. Son yıllarda milyonlarca insan Türkiye'ye göç etmiş, göçmenlerin yaklaşık bir milyonu çocuk olup okullarımızda eğitim görmektedirler. Göçmen öğrenciler, dil ve kültürel farklılıklar gibi nedenlerle entegrasyon sürecinde zorluklar yaşamakta, bu durum müzik derslerindeki iletişimde olumsuz etkilemektedir. Türkçesi zayıf yabancı öğrenciler, müzik derslerinde aktif katılım gerekliliği nedeniyle çekingenlik ve katılım güçlüğü gibi sorunlar yaşamayabilmektedirler. Bu durum daha çok tek başına şarkı söyleme ve enstrüman çalma gibi aktivitelerde görülmekte olup okul şarkıları, türküler ve hatta İstiklal Marşı söylemenin de görülmektedir. MEB'in müzik dersi öğretim programında tüm sınıf düzeylerinde okul şarkıları, türküler ve özellikle İstiklal Marşı kazanımları yer almaktır; İstiklal Marşı kazanımları ise her sınıf için öncelikli olarak sunulmaktadır (MEB, 2018). Sonsel ve Bilgin (2019), marşın müzik dersi müfredatında öğretim basamaklarının ilk sıralarda yer aldığı ve bu nedenle müzik öğretmenleri için önemli olduğunu belirtmektedirler. Ancak bestesi Osman Zeki Üngör'e ait olan İstiklal Marşı, ses aralıkları, ses sınırları, tonalite ve prozodi (ses-söz uyumu) gibi özellikleri nedeniyle, kabul edildiği tarihten bu yana müzik eğitimcileri tarafından eleştirilmektedir (Sonsel ve Bilgin, 2019).

Bu özelliklerinden dolayı Türk öğrenciler dahi İstiklal Marşı'ni seslendirirken zorluk yaşarken, dil sorunu olan yabancı öğrenciler için bu durum daha da güçleşmektedir. Bu nedenle, araştırmacılar marşın söz ve müziğini daha akılda kalıcı hale getirmek amacıyla görsellerle desteklenen bir görsel/müzikal İstiklal Marşı haritası tasarlamışlardır. Marşın söz ve melodisinin akılda kalıcılığını artırmak amacıyla hazırlanan haritanın temel özelliği, ses yüksekliği ve nota değerlerini gösteren dikdörtgenler ile sözleri tanımlayan görsellerin kullanılmasıdır. Dizek üzerine yerleştirilen bu dikdörtgenler, altı farklı nota değerine göre orantılı olarak tasaranılmış ve nota değerlerinin görsel olarak daha somut ve anlaşılır hale gelmesi hedeflenmiştir.

Araştırmada araştırmacılar tarafından hazırlanan söz konusu haritanın yabancı öğrencilerle İstiklal Marşı'nın öğretilmesinde ne ölçüde etkili olduğunu belirlenmesi amaçlanmıştır.

Bu amaç doğrultusunda aşağıdaki sorulara yanıt aranmıştır.

Kontrol ve deney grubu öğrencilerinin;

1. ön test ve son test puanları arasında anlamlı bir artış var mı?
2. eğitim öncesi ve sonrasında İstiklal Marşı'ni seslendirme becerileri nasıldır?

Ön test-son test kontrol grubu deneyel model ile kurgulanan araştırmada çalışma grubu Yalova ili Çınarcık ilçesinde bulunan Hüdaverdi Aydin Ortaokulu'nda 5, 6, 7 ve 8. sınıflarda öğrenim gören 30 (n=15 kız, n=15 erkek) yabancı (milliyetleri Irak, Mısır ve Sudanlı) öğrenciden oluşturulmuştur. Öğrenciler okulun Türkçe öğretmeni tarafından değerlendirilerek, hiç Türkçe bilmeyenler ve az Türkçe konuşabilenler olarak gruplara ayrılmıştır. Öğrencilerin deney (n=15) ve kontrol (n=15) gruplarına dağılımı, her iki gruptaki öğrencilerin dil becerileri açısından eşit dağılması dikkate alınarak yansız atama yöntemiyle yapılmıştır.

Araştırmacı, deney ve kontrol grubu öğrencilerine dört hafta boyunca haftada bir kez İstiklal Marşı çalışmıştır. Uygulama öncesinde her iki gruptan marşı söylemeleri istenmiş, performanslar videoya kaydedilerek ön test verileri elde edilmiştir. Deney grubuna eğitim, Görsel/Müzikal İstiklal Marşı Haritası kullanılarak; kontrol grubuna ise sadece öğretmenin söylediğinin tekrar edilmesiyle yapılmıştır. Uygulama sonunda her iki gruptan marşı tekrar söylemeleri istenmiş ve bu performanslar da kaydedilmiştir. Ön test ve son test videoları, uzman görüşüyle hazırlanan dereceli puanlama anahtarına göre iki akademisyen ve bir müzik öğretmeni tarafından değerlendirilmiştir, elde edilen veriler SPSS 23 programı ile analiz edilerek tablolaştırılmıştır.

Araştırma sonuçlarına göre, eğitim sonunda her iki grupta da ön test ve son test puanları arasında anlamlı bir artış görülmüştür. Bu artış, marşın her iki gruba da öğretilmiş olmasından kaynaklanmaktadır. Grupların ön test puanları birbirine yakındır, son teste kontrol grubunda yaklaşık 12 puan, deney grubunda ise 20 puanlık bir artış gözlemlenmiştir. Bu fark, Görsel/Müzikal İstiklal Marşı Haritası'nın marşın öğrenilmesinde daha etkili olduğunu göstermektedir.

Ön test ve son test bulgularına göre, hem deney hem de kontrol grubunda sözleri doğru söyleme, doğru tempoda seslendirme ile doğru yükseklik ve nota değerleriyle söyleme becerilerinde anlamlı gelişme gözlemlenmiştir. Her iki grup da marşı seslendirme becerilerini geliştirmiştir. Ortalama puanlar, her iki teste de en yüksek başarıyı marş sözlerini söylemede göstermiştir; bunun sebebi öğrencilerin haftada en az iki kez marşı tekrar etmeleridir. Ancak deney grubundaki öğrenciler, haritadaki sözleri hatırlatan simgeler sayesinde kontrol grubuna kıyasla daha fazla gelişme kaydetmiştir. Ayrıca marşın doğru nota değerleri ile doğru yükseklikte söylemesi gibi diğer becerilerin de deney grubunda daha fazla geliştiği sonucuna ulaşmıştır. Bu durum, haritadaki nota değerlerini ve ses yüksekliklerini simgeleyen dikdörtgenlere bağlanabilir.

Her iki grupta da ön test ve son testte en düşük ortalama becerinin marşın notalatını doğru yükseklikte seslendirme olduğu belirlenmiştir. Sesleri doğru icra etme becerisinin en düşük ortalama puana sahip olmasının nedeninin öğrencilerin yeteneklerinin test edilerek seçilmemesi ve herhangi bir kulak eğitimi almamış olması olduğu düşünülmektedir. Her iki gruba bakıldığından her beceriye ilişkin son test ortalama puanlarının ön test ortalama puanlarına göre arttığı görülmüştür. Bu durum yine her iki gruba verilen eğitime bağlanabilir ancak deney grubunda her bir beceriye ilişkin ortalama puanlardaki artışın kontrol grubuna göre daha yüksek olması harita ile öğrenen öğrencilerin becerileri daha iyi gerçekleştirdiklerini göstermektedir.

Yukarıda belirtilen sonuçlara göre; İstiklal Marşı öğretiminde yeni bir model denemesi olan haritalama yönteminin etkili bir yöntem olduğu söyleyebilir.