Social Studies Instruction With Educational Music: Write, Compose, and Apply

Şule Egüz

Abstract

The present study aimed to assist pre-service social studies teachers in the production of song lyrics adequate for the curriculum, composition of songs that would be of interest for secondary school students to construct functional educational music in social studies courses and determine the impact of this music on academic achievements and learning processes of the students. In the present study, exploratory sequential design, a mixed research method, was employed. In the first stage, song lyrics were written by 55 pre-service teachers attending the education department in a public university in Malatya province, Turkey, and songs were composed with these lyrics by a music teacher, and two music department students. The second stage (application phase) was conducted with 48 secondary school students. In the final stage, the views on the use of educational songs in the classroom were obtained. The study data were analyzed with quantitative and qualitative analysis techniques. The study findings demonstrated that the songs created by pre-service teachers improved the achievements of secondary school students in the social studies course, supported learning by fun, provided better comprehension of the course topics, and were effective in maintaining the student motivation and attention.

Keywords
teacher education, education, social sciences, music, humanities, teaching, students, education, social studies

Introduction

Art could function as a mirror by reflecting the ideals of a society. In other words, the ideas and concepts of a certain period could be manifested in contemporary arts, literature, and music (Bally, 2002). Social studies have been developed as a combination of literature, arts, and social sciences with an interdisciplinary approach to the acquisition of basic citizenship skills (National Council for the Social Studies, 2002). Thus, to train creative individuals with observation, visual thinking skills, and awareness of their emotions and ideas, and who are environment-sensitive with a love for nature, people, and art, various artistic fields should be integrated into the social studies curriculum.

It was suggested that the shortest path to the improvement of the quality of life of the society, and adaptation of the individuals to the world while preserving their culture and dynamics could be through arts and music. Humans combine and organize the sounds, converting them into an artistic form of expression. The relationship between sounds and humans has led to the creation of the “art of music” (Belfi et al., 2016; Edwards, 2019; Say, 2010). Music is considered a tool created based on certain cultural assets, reflecting the consciousness of the society. Due to this property, it is possible to have knowledge of the perspectives of the people and their relationships with life via musical works (Sağır & Öztürk, 2015). In fact, the students today follow up on the latest gossip, use social media effectively, watch YouTube videos, and listen to their favorite music. Especially listening to music is among the activities that students enjoy. In the classroom, allowing students to use the music they love might make the instruction meaningful and improve their cultural sensitivity. For instance, Turkish folk music, which developed in regions where Anatolian culture has been influential, is a synthesis of the musical cultures of peoples inhabiting the geography. Thus, Turkish people are susceptible to this music genre. Cultural sensitivity could be improved by employing this genre of music in the classroom setting.

Music, which has been a part of people’s cultural lives for at least over 30,000 years, it elicits responses in infants, as well as has the ability to change brain patterns (Weinberger, 2004). Brain-based research has linked music to increased learning and the intelligence of “information processing,”

1Inonu University, Malatya, Turkey

Corresponding Author:
Şule Egüz, College of Education, Inonu University, Malatya 44280, Turkey.
Email: suleeguz@gmail.com
where people associate learning with the recognition of pitch, tone, and rhythm (Gardner & Hatch, 1989; Jensen, 2001). A familiar melody can be presented at almost any tempo and at any pitch level and remain recognizable; hence memory encoding of familiar melodies is not an exact copy of particular pitches and time intervals, but a higher-order abstraction of particular features of the melody (Snyder, 2011). Thus, it could be argued that accompanying the music while listening could achieve a different goal, the improvement of the student’s memory. Because, when an individual hears a song for the first time, a connection is established between the song and the concurrent actions of the individual. Thus, a mutual connection between music and current events is established. When the listener hears the song again, the events associated with the initial moment are revived in the mind of the listener (Rozinski, 2015). The individual’s perception of music depends on how the words and rhythms are processed in the brain.

Educational music, considered a music genre, could improve the excitement and desire of the students due to conducting a novel activity, as well as allowing students to learn knowledge that is difficult to learn through rhythm and when having fun. In fact, rhythm in educational music has a facilitating effect on learning knowledge (Ayyilmaz, 2016; Bokiev et al., 2018; Gonzalez & Aiello, 2019). The utilization of music in the social studies classroom can take the form of time period pieces, cultural music, mnemonics for memorization, films, and much more (Skeen, 2015). Educational music, especially on historical topics in social studies, could create a much-needed cognitive space for students to explore past problems and recognize artists’ assumptions about the world. Historical songs can (1) present opportunities for students to question truth claims, (2) add contextual depth to help students make sense of the past, and (3) help students recognize that tone and rhythm often buttress social arguments made through lyrics (Howell & Callahan, 2016). Asafiev (1971) perceived music as a collection of intonations, or organization of tones based on socially crystallized sound complexes. As with every intonational element, Asafiev (1971) believed that the meaning of each interval and the degree of tension are established and consolidated in the awareness of the society as they evolved. Intonation is especially important for the recognition and reinforcement of semantic relations (Asafiev, 1971). Asafiev’s (1971) entire theory was about the procedural nature of historical things. Music “as a reflection of reality” functions the same way. According to Asafiev (1971), musical form is not merely a constructive scheme but also something verified when heard, sometimes by several generations (Viljanen, 2017). It is often difficult to grasp the meaning of sentences without intonation. Because without a personal intonation space, interaction is severely limited. Cooper (1998) believed that using songs in education would be extremely beneficial. According to Cooper, the songs were not naturally produced as educational material; however, each song includes pieces of information on its period, reflects a view, and has the potential to reconstruct its period with a meticulous study. Thus, it is possible to employ songs not only in social studies or history courses but in several others as well.

The pedagogical use of music has been well documented in secondary school education, especially in social studies courses (Brkich, 2012). Thus, Mangram and Weber (2012) emphasized the significance of songs in the instruction of social studies course in secondary school, providing students a historical context and motivating the students who experience concentration problems in the classroom. As a matter of fact, the popularity of music used in social studies lessons, the ability to involve students in the classroom, and the potential to make difficult-to-learn social studies concepts more accessible. In this context, the use of song lyrics both as text and by composition in lessons can be done effectively by establishing a relationship between the text and social studies content through lyric analysis (Harney, 2020; Walczak & Reuter, 1994). Analysis of lyrics strengthens the skills necessary for participatory citizenship and critical components of social studies education. These components include skills such as interpreting thoughts and making meaningful connections between historical and contemporary events (Brkich, 2012). Although music is an effective resource in social studies instruction, it is generally not included in social studies courses in secondary schools (Mangram & Weber, 2012; Root, 2005). Naturally, the integration of music in classes requires more effort; however, it could be successfully included in the curriculum. Cohen (2005) recommended playing music both before and during the class.

The most significant factor for a society to develop into an information society is the teachers employed in the education system. It is also important for the pre-service teachers to develop the skills to integrate music, which has a great impact on all stages in life, with educational content and to learn to integrate music in the classroom based on the course curriculum and the interests of the students. In fact, the role of teachers in understanding the logic of the social studies course, which is considered a rote-based course, and improving the love of the students for the course is quite significant. Thus, the active use of educational music in the classroom by teachers, who undertake the education of the next generations, could be considered imperative since they have the responsibility to transfer the social culture.

**Literature Review**

Various studies have been conducted in the literature on the employment of educational music in instruction. At the university level, Ahlkvist (1999) demonstrated that the use of rock and heavy metal music in education could easily teach complex sociological concepts such as alienation, functionality, class struggle by enabling visual hearing as well as listening skills among students. In a study, Rozinski (2015)
argued that song selection is important in achieving four goals such as introducing concepts that may be difficult for students to understand, exhibiting the application areas for these concepts, leading the students to critical thinking through songs about the problems, and obtaining biographical information about the theoretician they read. Waller and Edgington (2001), on the other hand, reported that songs were beneficial in history education, the transfer of emotions led to the acquisition of insight by the students about the period of study, which is very important in history education. In the study, they concluded that the students developed an understanding and appreciation of the people who experienced great historical conflicts through the investigation of the purpose and content of civil war music. Sánchez (2007) emphasized that the use of music in social studies education was an effective strategy and could be used as a springboard for high-level thinking and questioning skills among the students. Soden and Castro (2013), who discussed the current developments in the Iraq and Afghanistan wars and encouraged the use of various music genres in their study, aimed to improve the critical responses of the students through music in the classes. Skeeon (2015), conducted a survey with Central Florida teachers to investigate music integration in the middle school social studies course. While more than half of the educators (60%) stated that music could be an effective instructional tool, it was determined that almost all (95%) employed music very often, often, or sometimes and one way or another. Certain participants stated that they did not have the time, resources, or training to integrate music into social studies courses. Similarly, certain studies have been conducted on the integration and availability of music in the classroom environment (Brewer, 1995; Chilcoat & Ligon, 1992; Cohen, 2005; Crowther, et al., 2015; DeLorenzo, 2003; Epstein & Shiller, 2005; Güllüm & Ulusoy, 2008; Hailat, et al., 2008; Harris, 2004; Johnson, 1969; Kabapinar & Sargin, 2018; Mangram & Weber, 2012; Pellegrino & Lee, 2012; Smiley & Post, 2014; Waller & Edgington, 2001; White & McCormack, 2006). It is clear that these studies could be a practical guide for the use of educational music in social studies. The studies focused on the usability of music in the courses by students, teachers, and/or pre-service teachers using different methods and techniques. These studies contributed to educational music literature in terms of research problems and methods. Although the survey forms and similar instruments employed in these studies have certain advantages, they are sometimes inadequate to reflect the real-life experiences of the students and are limited by the theoretical framework.

The present study is important for pre-service teachers, who are at the very beginning of the profession, to gain educational music production experience by doing and living on the availability of educational music in the social studies course, its contribution to student achievements, and for the determination of the student approaches to the courses instructed with educational music.

The reflections of music on the field of education should be observed and analyzed, and the perceptions about music in the school environment should be determined. Music is a universal language; hence, the desire to learn could be improved by integrating music into every subject worth learning (Eady & Wilson, 2007). The present study was developed to support pre-service social studies teachers in writing lyrics for educational music adequate for the course content, to compose the music for these lyrics to raise the interest of secondary school students and to determine the impact of these songs on the academic achievements and learning of the students.

The questions to be answered throughout the research are listed below:

RQ1: What are the topics and topical distribution of the educational songs produced by the pre-service social studies teachers?
RQ2: Do the instructional applications conducted with the composed educational songs have an impact on the academic achievements of the students?
RQ3: What are the views of experimental group students on the instruction of the social studies course with educational music?

**Method**

**Research design.** In the present study, exploratory sequential pattern, a mixed research method, was employed. This design is also a two-step sequential model. Because, before the quantitative stage, the researcher begins to explore the topic qualitatively (Creswell & Clark Plano, 2011). Due to the structure of the exploratory design, the present study prioritized the collection and analysis of the qualitative data. Based on the explored findings, the second (quantitative) stage was initiated, and the initial findings were tested or generalized based on the qualitative data.

**Participants**

The study group was assigned with hybrid (mixed) sampling, which is one of the purposive sampling methods. When qualitative research is conducted for multiple purposes, it may be necessary to identify and utilize more than one sampling method. Different sampling methods could be used in different stages of long qualitative research (Neuman & Robson, 2014). Since the present study was conducted in two different time periods and with different participants, various sampling methods were employed.

The first phase of the study was conducted with sophomore students attending Inonu University Faculty of Education in Malatya province, Turkey during the 2018 to 2019 academic year fall semester (September, October–November). The second stage was conducted with sixth-grade secondary school students in the same province during
the 2019 to 2020 academic year fall semester (October–November). The application school was selected based on the voluntary participation of the music teacher in the school and the ability of the teacher to play several instruments. The first stage, where the song lyrics were written by pre-service social studies teachers, was conducted with 55 participants (S1. . . S55). The criterion sampling method was employed in the assignment of the participants. The main advantage of the criterion sample is the fact that the selected cases provide vast information (Marshall, 1996). The participants should be pre-service social studies teachers and should have attended the “Art and Esthetics Course” for one semester (3 months). Art and Esthetics is a compulsory and face-to-face course given to second-year students of the social studies teaching department in Turkey. There was no need for online training as there were no pandemic conditions during the application period. Face-to-face participation was provided in the study. The lyrics written by the participants were composed by a music teacher and two pre-service music teachers.

The second stage, where the study applications were conducted, was carried out with 24 experimental and 24 control group participants. Homogenous sampling, a purposive sampling method, was used to determine the study sample. In the homogenous sampling method, a small and homogeneous sample is assigned and studied in detail (Neuman, 2014). After the second stage of the study, interviews were conducted with 10 students in the experimental group on the effectiveness of the application. Ten participating students were assigned with the maximum diversity sampling, a purposive sampling method. In maximum diversity sampling, the sample is assigned to include subjects associated with the problem and reflect similarities, variations, and differences (Grix, 2010). The main objective was to obtain a relatively small sample that reflects the diversity intrinsic to the research problem as much as possible to eliminate the risk of “systematic errors” (Maxwell, 1996; A. Yıldırım & Şimşek, 2013). In the present study, to ensure the maximum participant diversity, the achievement test scores of the students and their course participation were scrutinized. Thus, it was determined that three students were higher level (K1, K2, and K3), four participants were intermediate level (K4, K5, K6, and K7) and three participants were lower level (K8, K9, and K10), and semi-structured interviews were conducted with these participants. Two social studies teachers assisted the author in the study.

Data Collection and Analysis

The present study data were collected with three methods. In the first stage, the data collection started with the lyrics written by the pre-service social science teachers after a 3-month training period in the art and aesthetics course. Since music plays an important role in the lives of young individuals, it could be easier for pre-service teachers to focus on lyrics (Rozinski, 2015) and develop products semantically adequate for social studies course content. Thus, the pre-service teachers were selected to write the lyrics. In the first month of the semester (September), theoretical knowledge on specified branches of art (sculpture, architecture, painting, music, literature, opera, theater, and cinema) was instructed, significant global examples were reviewed and their availability for the course was discussed.

In the second month of the training (October), the arts and the social studies course content were integrated, and the availability of this content for the social studies course was discussed. Then, after theoretical instruction on instrumental, classical, blues, electronic, folk, pop, and rock music and listening to the examples in these genres, the significance of educational music in the instruction process was addressed. In the final stage of the training process (November), pre-service teachers listened to songs associated with the social studies course content and were asked to write lyrics based on a learning outcome of their choice in the curriculum. In this final stage, the lyrics written by the students were scored by all students in the class using a rubric developed by the author based on suitability for the course achievements, accurate content, and comprehensibility of the language and expressions. While a rubric is a learning/instruction instrument that supports learning, it also serves as a scoring tool used to analyze the learning products/performances of the students based on predetermined quality criteria (Tuncel, 2011; Turgut & Baykul, 2013). In the study, two professors in the field of social studies education assessed the participant scores, the lyrics, and their suitability for the curriculum. After the analysis, the conformity of the lyrics with the curriculum was determined and it was estimated that the lyrics with the highest scores would concentrate on the sixth-grade curriculum achievements. The topical distribution of the lyrics written by the participants based on the sixth-grade curriculum is presented in Table 1.

The social studies course is instructed in the fourth, fifth, sixth, and seventh grades in Turkey. The social studies curriculum includes history, geography, and citizenship topics. As seen in Table 1, it was determined that the pre-service teachers wrote song lyrics on sixth-grade geography (11 songs), citizenship (10 songs), and history (8 songs) topics. Twenty-one lyrics were selected, and the music teacher and two pre-service music teachers employed in the same secondary school composed music for these lyrics. The eight eliminated songs were excluded from the application since they included the same topical content.

Achievement tests are developed based on a curriculum and utilized to determine the academic development of the students in terms of knowledge, comprehension, and perception both at the beginning and at the end of instruction (C. Yıldırım, 1999). In the quantitative section of the current study, the data were collected with an achievement test that included 30 questions about three learning areas (1. Culture and Heritage, 2. People, Places and Environments, and 3.
Active Citizenship) in sixth-grade social studies curriculum (Table 2) and the song compositions and applied in experimental and control groups as pre- and post-tests.

The achievement test was developed by the researcher as 45 questions. Procedures for the validity and reliability of the test:

In order to ensure the validity of the questions, forms were given to both social studies educators and teachers. Experts were asked to evaluate many dimensions (technique, relevance, language, etc.). After the evaluations, the questions were eliminated, and the number was reduced.

Before the application of the achievement test, the Cronbach’s alpha reliability coefficient was determined with a pilot scheme and calculated as $\alpha = .84$. Thus, the reliability of the academic achievement test was determined as high based on the reliability range reported by Doran (1980). Furthermore, item analysis was conducted to calculate the test item statistics, determine the questions that would be directly included in the test, and edit the items where necessary. The finalized test was applied as the pretest to both groups. After the pretest application, the composed educational songs were instructed to the students attending the sixth grade 6-A class in a secondary school in Malatya province, Turkey during the 2019 to 2020 academic year fall semester (October–November) with the assistance of the music teacher. During the instruction, no specific intervention was conducted in the class (6-B) designated as the control group, and the topics were instructed with question-answer and lecture-showing/telling methods similar to the previous courses. The same method was employed in the experimental group, but the 21 songs were also included in the instruction. The question-answer method for revealing student perceptions and insights about the teaching material, their experience levels in the current topic, and their attitudes toward the course based on their responses to the questions (Al-Darwish, 2012). On the other hand, the lecture-showing/telling method is a common and effective instruction strategy strongly supported by previous studies (University of Florida, 2020). Information on the experimental process adopted in the present study is presented in Table 3.

The achievement test data collected in the study were analyzed with the SPSS 22.00 statistics software, which is frequently used in quantitative analysis. The pretest and posttest achievement test data were transferred to the analysis software by assigning a “1” for a correct answer and a “0” for an incorrect or no answer. After the data were tested for normality and homogeneity of the variances, the correlation between the pretest and post-test scores of the experimental and control groups was analyzed with adequate tests for dependent and independent samples. In cases where the sample size was between 3 and 50, the Shapiro-Wilk test was used (Shapiro & Wilk, 1965). In cases where the student Shapiro-Wilk results were greater than 0.05, parametric tests were employed where the groups exhibited normal distribution. In cases where Shapiro-Wilk values were less than 0.05, non-normal distribution was assumed, and the data were analyzed with non-parametric tests.

After the applications, a semi-structured interview form was applied to 10 students in the experimental group. Semi-structured interviews are generally perceived as an easy data collection instrument (Wengraf, 2001). Furthermore, in semi-structured interviews, the interviewer may have the chance to

### Table 1. The Topical Distribution of the Songs Written Based on the 6th-Grade Achievements.

| Topic          | Topical distribution of the songs written based on the sixth-grade achievements | Frequency (f) | Percentage (%) |
|----------------|--------------------------------------------------------------------------------|---------------|----------------|
| Geography      | The regions in Turkey, Turkish geography                                       | 11            | 20             |
| Citizenship    | Patriotism, citizens’ responsibilities, and human rights                       | 10            | 18             |
| History        | First Turkish states                                                           | 8             | 15             |

### Table 2. Three Learning Areas, Achievements in the Sixth-Grade Social Studies Curriculum, and Associated Test Questions.

| Grade          | Learning area                        | Achievement                                                                 | Number of questions |
|----------------|--------------------------------------|-----------------------------------------------------------------------------|---------------------|
| Sixth grade    | 1. Culture and heritage              | Could infer the geographical, political, and cultural characteristics       | 10                  |
|                |                                      | of the initial Turkish states established in Central Asia.                   |                     |
|                | 2. People, places, and environments   | Could indicate the main anthropogeographical characteristics of Turkey on  | 10                  |
|                |                                      | associated maps.                                                            |                     |
|                | 3. Active citizenship                | Could explain that the rights and responsibilities of active citizens      | 10                  |
|                |                                      | of the Republic of Turkey are under constitutional assurance.               |                     |
produce information instead of hiding behind pre-determined interview questions (Brinkmann, 2014). The interviews conducted in the study were recorded with a voice recorder, and descriptive analysis was conducted on the interview data after transcription. The events and cases discussed in the descriptive analysis were analyzed in detail, their correlations with the previous events and cases were examined and these events and cases were described (Karakaya, 2009).

Result and Findings

In this section, initially, the topics and topical distribution of the educational songs written by the pre-service social science teachers, the songs composed during the application, and the topical distribution of these songs and song samples were analyzed. Then, the effect of the instruction with the songs on the academic achievements of the secondary school students was determined. Finally, the views of the experimental group of students on the instruction of the social studies course using educational music were reported.

The Topics and Topical Distribution of the Educational Songs Written by Pre-Service Social Studies Teachers

Initially, the lyrics written by the participants were scrutinized as the main instruction resources. The topics and topical distribution of the lyrics are presented in Table 4.

The review of Table 4 demonstrated most lyrics written by pre-service teachers were on the content of the history course \( (f=24, 44\%) \) and on initial Turkish states’, “Ottoman history,” “War of Independence,” “general Turkish history,” and “Atatürk’s life” topics. The least selected topics included the citizenship course content \( (f=10, 18\%) \) and “patriotism,” “citizenship responsibilities,” and “human rights” topics. The lyrics on geography course content \( (f=21, 38\%) \) were “Turkish regions,” “Turkish geography,” “climate,” “landforms,” “natural disasters,” “groundwater resources in Turkey,” “the Solar System,” and “love of nature” topics. Although global developments and problems are often on the current agenda and were included in the curriculum, it is an important finding that the pre-service teachers did not write any lyrics on these topics, and this should be further discussed.

| Group          | Pretest                        | Experiment                                    | Posttest                      |
|----------------|--------------------------------|-----------------------------------------------|-------------------------------|
| Experimental   | Achievement test               | Geography (7 songs) Citizenship (7 songs)     | Achievement test              |
| Control        | Achievement test               | Question/answer and lecture-showing/telling   | Achievement test              |

Detailed information on the 21 lyrics selected among the 55 lyrics written by the pre-service teachers and employed in the application is presented in Table 5.

The lyrics were selected based on the exact match of their topic with the sixth-grade curriculum achievements (examples of these songs are presented in Table 6). The lyrics on the geographical regions of Turkey, Turkish geography, citizenship responsibilities, human rights, and initial Turkish states were determined to be accurate sources of information, suitable for the course achievements, and comprehensible and these lyrics were composed. At this stage, support was obtained from the music teacher and pre-service music teachers.

The Impact of Instructional Activities Conducted With the Composed Songs on the Academic Achievements of the Students

The academic achievement test developed for the “Culture and Heritage,” “People, Places and Environments,” and “Effective Citizenship” learning areas, which were instructed to the experimental and control groups, were applied to both groups as pre- and post-tests. To determine the impact of instructional applications with educational music on academic achievement, initially, the pre-test scores, post-test scores, and mean pre-test and post-test scores of the experimental and control groups were compared.

Based on the analysis, it was determined that there was no significant difference between the pretest experimental and control group scores in the academic achievement test \( [t(43)=-1.048, p>.05] \). It was observed that the academic achievements of the experimental and control group students before the application were similar, and it was determined that it would be adequate to compare the academic achievements of these groups.

The academic achievement pre-test and post-test scores of the experimental and control group students were analyzed with the independent-samples test, and the results are presented in Table 7.

| Group          | Pretest                        | Experiment                                    | Posttest                      |
|----------------|--------------------------------|-----------------------------------------------|-------------------------------|
| Experimental   | Achievement test               | Geography (7 songs) Citizenship (7 songs)     | Achievement test              |
| Control        | Achievement test               | Question/answer and lecture-showing/telling   | Achievement test              |

The academic achievement pre-test and post-test scores of the experimental group students were analyzed with the Wilcoxon Signed Ranks Test and the control group student scores were analyzed with the dependent-groups \( t \)-test. The experimental group findings are presented in Table 8 and the control group findings are presented in Table 9.
It was determined that there was a significant difference between the academic achievement pretest and posttest scores of the experimental group students \[ z = -5.100, p < .05 \]. The positive rank mean (12.00) in the experimental group of students was higher when compared to the negative rank mean (0.00), indicating that the significant difference was in favor of the positive rank, that is, the post-test scores \( X_{\text{pre}} = 26.05, X_{\text{post}} = 65.40 \).

It was determined that there was a significant difference between the pre-test and post-test academic achievement scores of the control group students \[ t (19) = -7.554, p < .05 \]. The fact that the arithmetic mean (45.32) of the control group students in the posttest was higher when compared to the arithmetic mean (29.05) in the pretest indicated that the significant difference was in favor of the mean posttest score. This finding demonstrated that the instruction increased academic achievement in both groups.

The academic achievement post-test scores of the experimental and control groups were analyzed with the Mann-Whitney \( U \) test and the results are presented in Table 10.

The review of the Table 10 would demonstrate that there was a significant difference between the achievement test post-test scores of the experimental and control groups \( U = 67,500, p < .05 \). The fact that the mean rank for the experimental group (31.46) was higher when compared to the control group mean rank (15.38) indicated that the significant difference was in favor of the experimental group. This finding demonstrated that the instruction of social studies course with educational music to the experimental group was more effective in increasing the academic achievement of the students when compared to the instruction with only question-answer and lecture-showing/telling method implemented in the control group.

**The Views on the Instruction of the Social Studies Course With Educational Music**

In this section, 10 students in the experimental group were asked about their views on the instruction with educational music. The views of the students on the contribution of

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**Table 4. The Topics and Topical Distribution of the Lyrics Written by Pre-Service Social Science Teachers.**

| Topic                | Topical distribution of the songs         | Frequency (f) | Percentage (%) |
|----------------------|------------------------------------------|---------------|---------------|
| Geography            | The regions in Turkey, Turkish geography | 11            | 20            |
| Citizenship          | Patriotism, citizens’ responsibilities, and human rights | 10            | 18            |
| History              | First Turkish states                      | 8             | 15            |
| History              | Ottoman history                           | 5             | 9             |
| History              | War of independence                       | 5             | 9             |
| Geography            | Climate                                   | 4             | 7             |
| History              | General Turkish history                   | 4             | 7             |
| Geography            | Landforms                                 | 2             | 4             |
| History              | The life of Atatürk                       | 2             | 4             |
| Geography            | Natural disasters                         | 1             | 1.8           |
| Geography            | Underground resources in Turkey           | 1             | 1.8           |
| Geography            | The solar system                          | 1             | 1.8           |
| Geography            | Naturalism                                | 1             | 1.8           |
| Total                |                                          | 55            | 100           |

**Table 5. The Songs Employed in the Application Process, Their Topics, and Topical Distribution.**

| Topic                | Topical distribution Song title                                     | Participants (pre-service teachers) | Frequency (f) |
|----------------------|---------------------------------------------------------------------|-------------------------------------|---------------|
| Geography            | The geographical regions in Turkey and Turkish geography            | My beautiful Turkey, The Regions of Turkey, Let’s learn about Turkey, Do not Harm the Environment, Beautiful Anatolia, Anatolia from one region to another, Mediterranean Sea | S3, S4, S20, S24, S34, S37, S44 | 7             |
| Citizenship          | Patriotism, citizenship responsibilities, human rights              | Conscious Citizen, The Responsibilities of the Citizen Never End, I Love My Country, Know Your Rights Love Your Country, Active Citizen, Democracy | S1, S9, S15, S37 S40, S52, S55 | 7             |
| History              | Initial Turkish states                                               | Turk is my name and my name is Turk, Turks are Everywhere, Homeland, The Roots of Our History, From Huns to today, Us in History, Our Lesson is Social Studies | S2, S13, S21, S32, S45, S50, S53 | 7             |

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The fact that pre-service teachers wrote lyrics based on the students’ interests in the social studies course, which would improve their listening skills, and were adequate for the course content has undoubtedly affected the learning process of the secondary school students. The review of Table 11 would reveal that educational music mostly supported “learning by entertainment” (7), “supports movement” (1), “cooperation” (f = 1), and “reduces homework and time devoted for topic repetition at home” (f = 1) the least. The review of the distribution of the participants determined that all participants with low academic achievement in the category of supporting learning by entertainment were in agreement. All students with high achievement considered instruction with educational music important in the “acquisition of knowledge different than the conventional methods.” Furthermore, it was stated that educational music contributed to better and easier comprehension of the topic increased attention and motivation, allowed the repetition of the topic, facilitated retention, and to arouses interest. The views of certain participants were as follows:

Our classes are always the same. Sometimes I get bored but still listen. I think the classes became fun with this music. Because I learned the information without getting bored and had fun in the
class. I listened carefully because the teacher made us sing as well, and I did not get bored. I wish it was like that in courses like math. (K2-High level)

I comprehended the topics better. After the class, I sang ‘Our lesson is social studies’ song until I arrived home. It was very nice. I did my homework at home, without even looking at the book. (K4-Intermediate)

I don’t like social studies or other courses that much. I won’t go to school anymore when these schools are over. Playing games is better. I liked these instructed lessons a bit better. I was interested and listened. I normally like to listen to some singers.

Discussion

In general, it is possible to train individuals who could express themselves through artistic methods, know, pre-
serve, learn, and respect their culture, are responsible, cre-
ative, and have respect for the global cultural heritage by integrating educational songs into social studies courses, and the role of teachers and/or pre-service teachers is

Table 8. The Results of the Wilcoxon Signed Ranks Test Conducted on the Academic Achievement Pre-Test and Post-Test Scores of the Experimental Group of Students.

| Pretest/posttest | N | Mean rank | Total rank | U   | p Value |
|------------------|---|-----------|------------|-----|---------|
| Negative rank    | 0 | 0.00      | 0.00       | –5.100 | .000*   |
| Positive rank    | 24| 12.00     | 267.00     |     |         |
| Equal            | 0 |           |            |     |         |

*p < .05.

Table 9. The Results of the Dependent-Groups t-Test Conducted on the Academic Achievement Pre-Test and Post-Test Scores of the Control Group Students.

| Test      | N  | Arithmetic mean | SD | Sd | t    | p-Value |
|-----------|----|-----------------|----|----|------|---------|
| Pre-test  | 24 | 29.05           | 7.25 | 19 | –7.554 | .000*   |
| Post-test | 24 | 45.32           | 10.95 |    |      |         |

*p < .05.

Table 10. The Results of the Mann-Whitney U Test Conducted on the Academic Achievement Posttest Scores of the Experimental and Control Groups.

| Group    | N  | Mean rank | Total rank | U   | p-Value |
|----------|----|-----------|------------|-----|---------|
| Experimental | 24 | 31.46     | 676.50     | 67.500 | .000    |
| Control  | 24 | 15.38     | 352.50     |     |         |

Table 11. The Contribution of Educational Music to the Instruction Process.

| Contribution of educational music to the instruction process | Participants |
|-------------------------------------------------------------|--------------|
| Supports learning by entertainment (7)                      | K2, K3, K5, K7, K8, K9, and K10 |
| Acquisition of knowledge different than the conventional methods (5) | K1, K2, K3, K6, and K10 |
| Better and easier comprehension of the topic (4)             | K3, K4, K8, and K9 |
| Attention (3)                                               | K2, K3, and K7 |
| Increases motivation (3)                                    | K1, K3, and K6 |
| Allows repetition of the topic (3)                          | K4, K5, and K8 |
| Facilitates retention (2)                                   | K1 and K10 |
| Raises interest (2)                                         | K8 and K9 |
| Supports movement (dance) (1)                               | K7 |
| Collaboration (1)                                           | K3 |
| Reduces homework and time devoted to topic repetition at home (1) | K4 |

When the classes were like that, I understood easily because I listened. We even sang the song with Ali the next day. We had fun together. (K9-Low level)
important in this process. The Orff-Schulwerk approach places the creative human being at the focus of all artistic pedagogic activities (Jungmair, 2003). Thus, pre-service teachers are often expected to improve their practical skills by thinking like teachers. Because training qualified teachers is a prerequisite to training qualified future generations. In the present study, it was observed that pre-service teachers who wrote lyrics adequate for the social studies curriculum could also be productive in applications with similar content and could adopt a multi-dimensional approach (grade, age, suitability for curriculum achievements, language and expression, popularity, etc.) when transferring their knowledge to the classroom environment.

“Teaching the pre-service teachers how to use educational music as a primary resource not only involves them in the historical thinking process but also contributes to learning how to become active listeners” (Hutchinson & McArthur Harris, 2016). The analysis of the study findings demonstrated that pre-service teachers wrote historical lyrics the most. While these songs would be beneficial in history instruction, they also supported students in gaining awareness about their own thoughts, emotions, and behavior over a period of time (Waller & Edgington, 2001).

Palmer and Burroughs (2002) also suggested that the songs could be an important resource for social studies classes, especially on historical topics since the songs include information about the period they are about. Thus, music is important in attracting students’ interest and helping them enjoy historical topics in a brand-new light. Since music is an ideal tool to improve the comprehension of historical and contemporary events, it is naturally inevitable for pre-service teachers to focus especially on historical songs.

The Social Studies course reflects the properties of the citizenship education program and allows the students to adapt to society as citizens with democratic values and employ the knowledge and experiences they acquired in their lives (Merey, 2009; Olovsson, 2021). In the study, it was determined that the pre-service teachers wrote lyrics on topics of “patriotism,” “citizenship responsibilities,” and “human rights” in the content of citizenship knowledge the least. Songs could be used as resources to develop powerful analysis tools to negotiate audio data, weigh value conflicts, and find solutions for social problems (Howell & Callahan, 2016). Social studies course does not only include historical topics. Future social studies teachers could enrich the educational environment by imposing their creativity for effective citizenship education. Thus, it is important that they benefit from the power of music more effectively. Because, especially in the contemporary democratic societies, citizens are assigned a great deal of importance, and citizenship is tackled in association with human rights as well as citizenship rights and freedoms.

Another important finding was that although global developments and problems are frequently included in the current agenda and in the program, pre-service teachers did not include these topics in the lyrics they wrote. Music is a powerful tool that teachers could use to seriously examine social problems such as poverty, racism, abuse and addiction, and global problems such as hunger, disease, and war (White & McCormack, 2006). It is important that the individuals in the global world should be trained to follow not only their immediate environment but also the whole world and all individuals should be trained with the awareness that the world is a common living space for all humankind. Problems such as natural disasters, environmental pollution, misuse of resources, rapid population growth, and depleting resources could render the world uninhabitable in the future. At this stage, there is a greater need for sensitive individuals than ever before. Egüz and Koçoğlu (2019) suggested that in order to increase the applications that could provide behavioral solutions to global problems, it would be necessary to recognize the global problems, to know and create awareness of the solutions, where teachers and/or pre-service teachers share a greater responsibility.

The intelligence, student’s cognitive traits, physiological status, motivation, studying habits, solitude, exam anxiety, school characteristics, environmental factors, socio-economic and familial characteristics, teacher quality, attitude toward the lesson, materials used, and learning methods are effective in academic achievement (Boozer & Rouse, 2001; Christenson et al., 1992; Darling-Hamond, 2000; Klomegah, 2007; Ponzetti & Gate, 1981). Music is an important method in coping with the ongoing challenges for social studies teachers, providing students with the opportunity to critically investigate relevant social issues and effective tools to connect with students’ world (White & McCormack, 2006). Teachers could easily integrate educational music into the classroom through active participation, question-answer sessions, and problem-solving. In the present study, the academic achievement test results demonstrated that the instruction assisted with educational music in the experimental group was more effective on the increase in the academic achievements of the students when compared to the instruction conducted with the control group where only the question-answer and lecture-showing/telling methods. The only difference in the experimental group was the active use of educational music. Thus, the comparison of the academic achievement test scores of both groups demonstrated that the instruction assisted with educational music in the experimental group was more effective on the increase in the academic achievements of the students when compared to the instruction conducted with the control group where only the question-answer and lecture-showing/telling method was employed. Similar to this finding, Hailat et al. (2008) conducted a study with seventh-grade social studies students and determined that students who played music in the classroom exhibited higher academic achievements when compared to students who were instructed without playing music. They argued that including music in the learning environment was extremely beneficial. This was also true for different courses. For example, Braynt et al.
Music is a universal language and could be integrated into any topic worth learning to improve the learning pleasure (Eady & Wilson, 2007). The student interviews conducted with the experimental group suggested that educational music contributed to “learning by entertainment” the most, and “supporting the movement,” “collaboration,” and “reducing time spent on homework and repetition of the topic” the least. Rhyme, rhythm, and movement have been significant instructional tools that instill the values, customs, and beliefs of the society in history (Brown & Brown, 1997). Rhythmic patterns and vibrations have profound effects on the body and the emotional state. It is known that isolated tones, scales, and simple tone sequences have an energizing effect on the body (Campbell, 1991). Orff-Schulwerk approach, which has been employed globally for a half-century, was based on movement, dance, rhythm, language, and improvisation. Potential skills such as creativity, body language, and esthetic perception could be improved with this approach (Jungmair, 2003). Despite the energizing effect of rhythms, the fact that students mentioned the “supporting movement” aspect least was challenging.

Moore (2007) argued that supporting the classes with activities that students consider entertaining positively affected academic achievement. The review of the distribution of the participants demonstrated that all participants with low academic achievement agreed on the category of “supports learning by entertaining.” Brewer (1995) suggested that music makes the learning process more fun and interesting, regardless of students’ achievement level. In the present study, all students who exhibited high academic achievement in the educational applications conducted with educational music stated that they considered it important for the “acquisition of knowledge different than the conventional methods.” Listening is an active process that entails paying attention to the spoken words, understanding the sounds as well as hearing them (Hampleman, 1958), hearing, comprehension, integrating the comprehended knowledge with the prior knowledge, and responding when necessary (Wolff et al., 1983), led to a difference in the acquisition of knowledge through music in the current study. Music provides students with listening energy that is not common in social studies courses (Palmer, 1998). The songs demonstrated that students could employ songs as teaching material to overcome their listening difficulties and improve their listening skills. The individual who learns by listening employs this skill throughout life as a learning tool.

The employment of educational music as instructional material is extremely effective in arousing the interest of the students and maintaining their interest and concentration (Brewer, 2008; Harris, 2004). Several instructional methods could be implemented successfully, especially after the student’s interest is aroused (Palmer & Burroughs, 2002). In the study, it was stated that educational music contributed to understanding the topic better and easier, arousing interest, improving motivation, repeating the topic, and improving retention. Music facilitated learning and is, therefore, a valid strategy in contemporary classrooms. Music makes learning effective, more permanent, and meaningful (Skeen, 2015; Smiley & Post, 2014). It helps students improve their self-esteem and create a sense of cooperation by allowing students to discover concepts that they can connect to and apply with their prior knowledge (Brown & Brown, 1997).

In conclusion, the songs written by pre-service teachers improved the achievements of secondary school students, supported learning with entertainment and provided a better understanding of the topics, and maintained the motivation and attention of the students. The fact that pre-service social studies teachers did not include global problems in their lyrics may lead to a perception that they are not sensitive to these problems. However, since they were allowed to write a single lyric, it could be considered normal for them to focus on the topic they were most interested in. Based on the present study findings, it could be suggested that teachers should employ educational music in the instruction more effectively in all courses, and occasionally include activities that involve various genres of music that would extend the musical culture of the students.

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**ORCID iD**

Şule Egüz https://orcid.org/0000-0002-3633-8957

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