Proposal of a Model for the Teaching of Aksak Meter Folk Songs in Flute Education: The Flipped Learning Model

Ajda Şenol Sakin [1], Gülnihal Gül [2], Melike Çakan Uzunkavak [3]

Abstract

This study was implemented to identify the contribution of the flipped learning model to the vocalization level in the flute performance of aksak meter Turkish folk songs with different meter numbers and rhythm patterns. Moreover, the study aimed to obtain the participants' opinions about the flipped learning model and evaluate this learning model in terms of its suitability for the students' practice habits. In the study, the explanatory design, one of the mixed research methods, including the experimental and descriptive, was utilized, and in an attempt to identify the contribution of the flipped learning model to the performance level of folk songs, first quantitative data and then qualitative data were collected by conducting interviews with the participants. Regarding the experimental process, the study group consisted of 10 flute students. Within the scope of the study, teaching two aksak meter folk songs was conducted with the flipped learning model, and the teaching of two different folk songs was implemented with the traditional teaching method. While the quantitative data obtained from the study were analyzed using the Wilcoxon signed-rank test, the qualitative data were analyzed using the content analysis method. As far as the results of this study are concerned, when the performance levels of folk songs taught with the traditional and flipped learning model were compared, it was revealed that there was a significant difference in favor of the folk songs taught with the flipped learning model. Consequently, it was established that the proposed flipped learning model facilitated the sight-reading process in the flute education process and also contributed to rhythmic mastery, musical piece awareness, and musical mastery. Furthermore, it was also revealed that it made a significant contribution to the performance of the aksak meter folk songs and that the performances carried out with the flipped learning model contributed to the reduction of the anxiety levels of the majority of the students.

[1] Bursa Uludağ University, Faculty of Education, Department of Fine Arts Education, Türkiye, ajdasenol@gmail.com

[2] Bursa Uludağ University, Faculty of Education, Department of Fine Arts Education, Türkiye, gulnihal@uludag.edu.tr

[3] Harran University, State Conservatory, Department of Music, Türkiye, melike67@harran.edu.tr

Introduction

Music education, regarded as a significant factor in shaping individuals and social life, has been considered an essential educational tool since ancient times. Music education can be categorized into three distinct types based on its scope and content: general, professional, and amateur. Within these categories, music education encompasses various sub-dimensions, including musical perception (hearing, reading, and writing), vocal training, musical composition, rhythmical studies, and instrumental proficiency (Fahy, 2023; Hill et al., 2023; Lorenzo Quiles, Cárdenas Soler, Soares-Quadros, & Ortiz-Marcos, 2023; Oktay, 2017; Soykunt, Çoban, & Öztuğ, 2023; Tepe & Yokuş, 2023; Tung & Satya, 2023). Instrument training is a crucial subcomponent of music education, defined as the process of instilling behavioral changes conducive to instrumental proficiency and the attainment of desired musical accomplishments (Bakhtiyorovna, 2023; Konakcı, 2010; Shu, 2018; Sungurtekin, 2002). Educational processes inherently include variables such as educational program, educational environment, students, and teachers (Albuz, 2004; Çuhadar, 2016; Moberg, 2023; Varner, 2022; Yücetoker, 2015). Furthermore, it is deemed important to determine how the desired behaviors that are aimed to be instilled for an effective teaching process should be transferred (Bükeç, 2003; Kertz-Welzel, 2023).

It is commonly known that different teaching methods such as modular, scenario-based, project-based, multiple intelligence theory-based, constructivist approach, the 5E model, computer-assisted, and micro-teaching can be utilized in the educational processes (Batdı, 2023; Çevik, 2007; Esmergül & Çaydere, 2015; Kaplan & Demir, 2023; Kaya, 2018; Kaybal, 2016; Özmenteş & Bilen, 2005). The advancement of technology, the integration of education and technology, and the development of new tools for this purpose (Web 2.0, Web 3.0), along with the increasing availability of internet resources both in schools and at home, have led to a transformation in the educational process. Traditional learning has been reversed, and approaches, where learning begins at home through internet resources, have started to be embraced. In this sense, the flipped learning model, which is one of the blended learning approaches in which the traditional learning is reversed by the students watching visual and audio materials before the lesson, in which online opportunities are used in addition to face-to-face education (El Miedany, 2019), is used in the instrument training process as well (Hwang, Chen, & Chia-Wen, 2019; Kanca & Albuz, 2023; Kardaş & Yeşilyaprak, 2015; Kuyumcu, Can, & Can, 2022; Ng, Ng, & Chu, 2022; Peng & Wang, 2022; Sever, 2014; Topalak, 2022).

The flipped learning model is described as a model that enhances understanding after the applications, changes the perspective, and has a high practice aspect (Cheng & Weng, 2017; Roehl, Reddy, & Shannon, 2013). With this model, compared to the traditional method, students' motivation increases and they are able to make their own decisions regarding the process (Hayırsever & Orhan, 2018). In this learning model, especially the theoretical content regarding the subject to be learned is shared with the students before the lesson through videos and materials prepared by the course instructor. When the student comes to the lesson having watched the videos and done the necessary activities and homework, the steps of remembering and understanding the subject are actualized outside the classroom. Therefore, more time is spared for the steps of application, analysis, evaluation, and creation with the training time in the classroom. Some of the positive aspects of flipped learning model applications are as follows: (1) the learning process that takes place outside the classroom with educational videos and the subsequent activities provide permanent and in-depth learning, (2) the ability to access the videos whenever they wish thanks to the flexible learning area, (3) the differences in the learning culture, (4) more active use of technology and technological materials (McDonald & Smith, 2013; Talbert, 2017). The possible negative aspects of the flipped learning, on the other hand, model, are as follows: (1) the fact that students have difficulties in managing the process individually, (2) experiencing troubles in the learning process, (3) difficulty in tracking down the students' duty of watching videos and performing assignments/practice performances allocated, (4) delays in learning as a result of wrong practices (Jenkins, 2015; Kocabatmaz, 2016).

When the relevant literature was reviewed, it was established that there were studies illustrating that the applications implemented with the flipped learning model supported the educational process (Bredow, Roehling, Knorp, & Sweet, 2021; Jacot, Noren, & Berge, 2014; Karagöl & Esen, 2019; Palazón-Herrera & Soria-Vílchez, 2021; Vélez, Verdugo, Mejía-Pesántez, Veintimilla-Reyes, & Maldonado-Mahauad, 2020; Yılmaz & Şimşek, 2022; Yoshida, 2019). Nevertheless, there were also studies in the relevant literature on the usability of blended and flipped learning models in music and instrument education (Avcı Akbel, 2018; Fitria, Floriasti, Djohan, & Sittiprapaporn, 2020; Fu, 2020; Juntunen, 2016; Lv & Zhao, 2019; Ng et al., 2022; Peng, 2019; Tuisku & Ruokonen, 2017; Shu, 2018; Yıldız, 2020; Wang, 2018). In these studies, it was concluded that the applications carried out in line with the blended and flipped learning model contributed to the practicality of education, as well as to the effectiveness of improving students' performance awareness and self-assessment skills. Furthermore, it was reported in these studies that there was a need to increase the number of studies conducted with the blended and flipped learning models.

It is believed that the inclusion of different practices in addition to the traditional teaching methods in instrument training supports the teaching process. With the understanding of education from national to universal, it is considered essential to include traditional music examples in the instrument education process at every stage of music education. Especially within the scope of professional music education, the music teacher candidates can have an idea about Turkish music to contribute to their professional achievements, recognize the characteristic features of Turkish music and learn the Turkish music repertoire, and create a Turkish music repertoire. In this sense, it is believed that it is essential to include traditional music in flute education as well. There are studies in the relevant literature that have referred to the necessity of increasing the use of Turkish music in flute education (Acar, 2022; Çil, 2018; Dönmez, 2012; Dulkadir, 2011; Erdal, 2020; Karavelioğlu Uzun, 2021; Karavelioğlu Uzun & Varış, 2021; Kurtaslan, 2010; Öner, 2011; Savuran, 2022; Şenol Sakin, 2016; Türkel, 2015; Türkel & Şen, 2015; Yalçınkaya, 2010). These studies also indicated that the use of Turkish music in flute education was very low and there were not enough materials. The present study, therefore, is considered significant both in terms of setting an example for increasing the use of Turkish music in flute education and in ensuring the widespread use of the flipped learning model, which is one of the models that may be more suitable for students today.

In this context, it was aimed to identify the contribution of the flipped learning model to the level of vocalization in the flute performance of folk songs in Turkish folk music with different meter and rhythm patterns and evaluate the flute students' views about this model and the suitability of the learning model with the students' practice habits. In line with this objective, the problem statement of the study is "What is the contribution of the flipped learning model to the level of performing the aksak meter folk songs in flute education?" and answers were sought to the following questions to solve the problem:

1. How do the flipped learning model applications contribute to flute students' performing level of the aksak meter folk songs?

2. What are the views of flute students about the application process of the flipped learning model?

Limitations of the Study
This study was limited;

- to 10 students who studied at the Bursa Uludağ University, Faculty of Education, Department of Fine Arts Education, Music Education Department in the spring semester of the 2021-2022 academic year, and who were technically and musically homogeneous with their individual instrument features.

- to the folk songs of Kırklar Samahı, Ardıçtandır Kuyuların Kovası, Atlar Eğerlendi, and Asmalı Mencere in 9/8 aksak meter, which were endorsed by the experts as suitable for the study.

- the performance process of folk songs has been confined to adaptation within the Tampere sound system.

Method

Research Model

In this study, an explanatory design was utilized, which is a mixed research method in which experimental and descriptive approaches are used together. According to Fraenkel, Wallen, and Hyun (2012, p. 332), "the researchers conducting explanatory studies generally investigate a set of variables that they believe are related to a more complex variable such as motivation or learning". Moreover, Creswell and Creswell (2018) referred to this pattern as an "explanatory sequential pattern". In the explanatory design, "the researchers collect quantitative data in the first stage, analyze the results, and then use the results to plan (or build upon) the second qualitative stage" (Creswell & Creswell, 2018, p. 304).

In the present study, quantitative data was used to identify the contribution of the flipped learning model to the flute performance of folk songs in the traditional Turkish folk music repertoire, to their performance level (especially to the correct vocalization of rhythm patterns), and then interviews were conducted with the participants in an attempt to evaluate the suitability of the learning model with their practice habits, and qualitative data was collected for this purpose. In the quantitative phase of the study, a quasi-experimental counterbalanced design was used and data was obtained with rubrics. In the qualitative phase of the study, data were collected through face-to-face interviews. All data obtained within the scope of the study were analyzed in depth by correlating students' views on the flipped learning model and its contribution to their performance levels. Figure 1 illustrates the design of the research model.
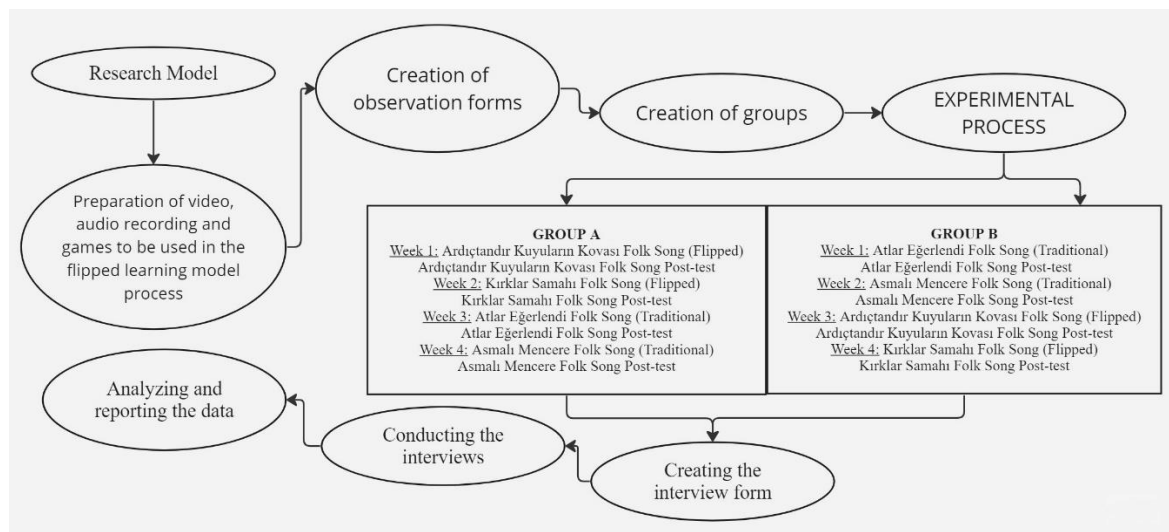

Figure 1. The Design of the Research Model

Study Group

When creating the study group of the research, a purposeful sampling method was used. Patton (2015) defined this method as an opportunity to "select information-rich, illuminating cases for qualitative research" and regarded the purposeful sampling method as an advantage for the study since it contained information-rich situations (Glesne, 2015, p. 59). Regarding the experimental dimension of the study, a study group of 10 people, consisting of homogeneous flute students studying at the Department of Music Education at the Faculty of Education of the Bursa Uludağ University in the 2021-2022 academic year, was formed. Table 1 presents the demographic information of the participants.

Table 1. Demographic Information of the Participants

Participants	Participant Code	Group	Gender	Grade Level
Participant 1	P1	B	Female	Master of Arts
Participant 2	P2	B	Female	1. year
Participant 3	P3	A	Male	2. year
Participant 4	P4	B	Male	4. year
Participant 5	P5	A	Female	1. year
Participant 6	P6	B	Female	4. year
Participant 7	P7	A	Female	4. year
Participant 8	P8	B	Male	3. year
Participant 9	P9	A	Female	1. year
Participant 10	P10	A	Female	3. year

The study group was divided into two groups using a quasi-experimental counterbalanced design in an attempt to reduce the effect of talent differences or skills that might develop through experience on the measurement during the experimental process. In a counterbalanced study design, each group was exposed to all stages of the experimental process in a different order (Fraenkel et al., 2012). In this study, the first group was initially taught two folk songs with the flipped learning model, and then two different folk songs were taught with the traditional method. With the second group, the folk songs were initially taught with the traditional approach, and then the teaching process of the other two folk songs was applied with the flipped learning model. While forming the groups, the method of matching the participants were utilized and the students' grades or flute playing levels were taken into consideration. Using this approach, a student whose proficiency level closely matched that of each student in Group A was additionally incorporated into Group B. Figure 2 illustrates a quasi-experimental counterbalanced design model of this study.

Group A	$X_{ty}1$	O	$X_{ty}2$	O	X_g1	O	X_g2	O
Group B	X_g1	O	X_g2	O	$X_{ty}1$	O	$X_{ty}2$	O

Figure 2. A Quasi-Experimental Counterbalanced Design Pattern of the Study

$X_{ty}1$, one of the symbols in Figure 2, indicates the first folk song to be taught with the flipped learning model, $X_{ty}2$ indicates the second folk song; X_g1 indicates the first folk song to be taught with the traditional method, X_g2 indicates the second folk song and the symbol O indicates the recent tests.

Folk Songs and Materials Used in the Experimental Phase

In the experimental phase of the study, four folk songs in 9/8 aksak meter were arranged for flute by Şenol Sakin (2016) and exercises prepared for these folk songs were utilized. While selecting the folk songs, it was ensured that they had the same meter number; therefore, the folk songs containing four different forms of the 9/8 aksak meter number were selected in the study.

Of these folk songs, the "Ardıçtandır Kuyuların Kovası" ($X_{ty}1$) and "Kırklar Samahı" ($X_{ty}2$) were selected for the flipped learning model, and "Atlar Eğerlendi" (X_g1) and "Asmalı Mencere" (X_g2) for the traditional teaching model based on the opinions of field experts. Furthermore, in the selection of folk songs, the performance levels of flute students in the pre-test phase of the relevant folk songs were examined through Şenol Sakin's (2016) thesis study ($X_{ty}1 – 2,21$, $X_{ty}2 – 2,60$, $X_g1 – 2,51$, $X_g2 – 2,38$). It was decided that the folk song with the lowest success rate, "Ardıçtandır Kuyuların Kovası" (See Figure 3), and the folk song "Kırklar Samahı" (See Figure 4), which alternated in terms of the number of measures, would be the flipped learning model application folk songs, in line with the opinions of field experts. Of the folk songs to which the traditional teaching model was applied, the folk song "Atlar Eğerlendi" (See Figure 5) had the 9/8 aksak meter number in the form of 2+3+2+2. The folk song "Asmalı Mencere" (See Figure 6) alternated in terms of form, like the folk song "Kırklar Samahı", and included the 3+2+2+2

and 2+2+2+3 forms of the 9/8 aksak meter. Quarter, eighth, sixteenth, thirty-second, dotted quarter, dotted eighth, dotted sixteenth, and sixteenth triple note values were used in folk songs. Figure 3 illustrates a section from the folk song "Ardıçtandır Kuyuların Kovası".

ARDIÇTANDIR KUYULARIN KOVASI

Figure 3. A Section from the Folk Song "Ardıçtandır Kuyuların Kovası" ($X_{ty}1$) Adapted for Flute

When Figure 3 is examined, it is clear that the folk song "Ardıçtandır Kuyuların Kovası", which was selected to be taught in the flipped learning model, belonged to the region of Burdur province, in the 9/8 aksak meter, in the form of 2+2+2+3. Figure 4 presents a section from the "Kırklar Samahı" folk song.

KIRKLAR SAMAHI

Figure 4. Section from the Folk Song "Kırklar Samahı" ($X_{ty}2$) Adapted for Flute

When Figure 4 is examined, it is clear that the "Kırklar Samahı" folk song, which was selected to be taught in the flipped learning model, had a 9/8 aksak meter, and that this number of measures of the folk song included the forms 2+2+3+2 and 2+3+2+2. Furthermore, in the 13th measure of the folk song, the number of measures changed to 12/8. A section from the folk song "Atlar Eğerlendi", which was chosen to be taught in the traditional education process of the study, is illustrated in Figure 5.

ATLAR EĞERLENDİ

(2+3+2+2)

Düzenleyen: Ajda Şenol Sakin
Malatya/Arapkir Yöresi

Figure 5. A Section from the folk song "Atlar Eğerlendi" (X_g1) Adapted for Flute

When Figure 5 is examined, it is obvious that the folk song "Atlar Eğerlendi", which was selected to be taught in the traditional education model, belonged to the region of Malatya/Arapkir, in the 9/8 aksak meter, in the form of 2+3+2+2. Figures 6 and 7 illustrate the sections from the folk song "Asmalı Mencere".

ASMALI MENCERE

(3+2+2+2 / 2+2+2+3)

Düzenleyen: Ajda Şenol Sakin
İzmir /Karaburun Yöresi

Figure 6. A sample of the (3+2+2+2) Form from the Folk Song "Asmalı Mencere" (X_g2) Adapted for Flute

Figure 7. A sample of the (2+2+2+3) Form from the Folk Song "Asmalı Mencere" (X_g2) Adapted for Flute

When Figures 6 and 7 are examined, it is apparent that the "Asmalı Mencere" folk song, chosen to be taught in the traditional education model, was in 9/8 aksak meter, in 3+2+2+2 and 2+2+2+3 forms, and belonged to the region of Izmir/Karaburun.

In the both flipped and traditional methods applications, in an attempt to perform the folk songs better, a scale and exercises prepared by Ajda Şenol Sakin for the relevant folk songs for her doctoral thesis were used. The doctoral study in question concluded that "these scales and exercises had a positive impact on the performance levels of folk songs in aksak meter" (Şenol Sakin, 2016, p. 120).

In the flipped learning model stage of the study, videos and presentations were prepared for teaching the theoretical subjects during students' extracurricular practice periods, the subjects of folk songs, rhythmic reading, and flute performance samples. The first video, which included the studies conducted by the researchers on the use of Turkish music in flute education by using various sources, briefly the Turkish folk music, traditional Turkish folk music folk songs, and the use of Turkish music in the field of flute education, was prepared in the "Prezi" application, one of the Web 2.0 tools, and was 10.52 minutes long. Following this, the presentation of measures in traditional Turkish music and simple, compound, and aksak meters in traditional Turkish Folk Music were prepared in the "Prezi" application.

After the students watched the video prepared for the relevant theoretical topics and read the presentation, a game on the subject was prepared in the "Wordwall" application to repeat and reinforce the information. The game consisted of 10 questions including multiple choice and true-false question types.

The videos containing information about the meter numbers, forms, form changes, if any, regions, compilers, vocal range, and lyrics of the folk songs "Ardıçtandır Kuyuların Kovası" and "Kırklar Samahı" were created in the "Powtoon" application. The duration of the video prepared for the folk song "Ardıçtandır Kuyuların Kovası" was 2.46 minutes, and the duration of the video prepared for the folk song "Kırklar Samahı" was 2.18 minutes. Of the videos created with examples of flute performances and score visuals for rhythmic reading of both folk songs to be used in the application, the flute recording of the folk song "Ardıçtandır Kuyuların Kovası" was 1.00 minute, and the rhythmic reading recording was 1.26 minutes; the flute recording of the folk song "Kırklar Samahı" was 2.14 minutes; and the rhythmic reading record was 2.16 minutes. The sound recordings and scores of the folk songs in these videos were combined with the "Movavi Video Editor" program.

Data Collection Tools

In the present study, quantitative data was collected with a rubric created by the researchers for each folk song, and qualitative data was collected with a semi-structured interview form prepared by the researchers again.

Rubric

In the research, the rubric prepared by Şenol Sakin (2016) was used. This rubric was created to measure the impact of exercises prepared for aksak meter folk songs on the performance level of the folk songs. The relevant rubric has been restructured for this study. In this sense, rubrics were arranged separately for each folk song. In the forms that allowed the performance level to be scored with various criteria, there were items regarding the performance of the folk song: playing the notes correctly, at a speed appropriate to its character, without hesitation, maintaining the tempo at the same (constant) tempo throughout technical passages, correct nuances, articulations, and breathing positions. Additionally, behaviors related to correctly performing rhythm patterns for each form in the folk song are being observed. Moreover, to measure the permanence of the information they acquired through videos and presentations, the students were asked two questions in the post-test applications, and the observers were asked to score these answers to evaluate the level of correct answers they gave to the questions. The rubrics, in which the required arrangements were made in line with the field expert opinions, consisted of 10 items for the folk song "Ardıçtandır Kuyuların Kovası", 12 items for the folk song "Kırklar Samahı", 10 items for the folk song "Atlar Eğerlendi" and 11 items for the folk song "Asmalı Mencere". Consequently, the students received 4 points when they performed the behavior for the relevant item completely correctly, 3 points when they performed it largely correctly, 2 points when they performed it partially correctly, 1 point when they performed it largely incorrectly, and 0 point when they performed it completely incorrectly. During the evaluation of the video-recorded post-tests, two field experts assessed the students' performing levels and their answers to the questions using the rubrics.

Interview Form

Face-to-face interviews were conducted with the participating students during the collection of qualitative data in the study. In this sense, a semi-structured interview form was used in the interviews. The questions in the interview form were created by blending and examining the dialogues carried out during the learning stage of the flipped learning model with the online tools outside the classroom, observations during the course, and the data obtained with the rubrics during the post-test phase. The prepared questions were evaluated in terms of content, understandability, and suitability of identifying the desired situation by consulting the experts in the field of music education and qualitative research methods. As a result of the necessary arrangements, 12 questions were prepared to establish the processes of traditional education and flipped learning models, the effect of these processes on performance, efficiency, compatibility with practice habits, effectiveness, positive and negative aspects, and the suggestions of the participants. Furthermore, additional questions were asked during the interviews to identify the opinions of some participants in more depth. The number of questions increased to a total of 22.

Data Collection

In the study, quantitative data were collected as a result of training the students with folk songs through the flipped learning model and traditional method, and after the training lessons were completed, the folk song was performed again as a post-test, video recording was made, and different raters evaluated it through a rubric.

Qualitative data were collected through face-to-face interviews with the participants. The interviews were audio-recorded with the permission of the participants. These recordings were transcribed and re-sent to the students for participant confirmation.

Application Process

The experimental process of the study was implemented within the scope of Individual Instrument Training (flute) lessons in the spring semester of the 2021-2022 academic year. The Individual Instrument Training courses were held face-to-face and once a week at the institution where the experimental study was conducted.

Within the scope of the study, it was planned to teach the folk songs "Ardıçtandır Kuyuların Kovası" and "Kırklar Samahı" with the flipped learning model, and the folk songs "Atlar Eğerlendi" and "Asmalı Mencere" with the traditional method. In this sense, videos and presentations were prepared regarding the content and teaching of folk songs to be taught with the flipped learning model. The 10 students who made up the study group were divided into two groups using the matching method (taking into account their grades or flute playing levels) and were named Group A and Group B. The flipped learning model training was implemented in Group A for the first two weeks. During this period, training continued with Group B using the traditional methods. In the last two weeks, training with the flipped learning model was conducted with Group B, and training with traditional methods was continued with Group A.

During the flipped learning model process, firstly, a WhatsApp group was formed with Group A, and a platform was created where the whole group could communicate together. Afterward, a board was generated through the "Padlet" application, one of the Web 2.0 tools, where students could watch videos, read presentations, play games, and upload their homework. Group A was added to the board as participants and the relevant link was sent to students via the WhatsApp group and e-mail. In the first stage, the students were asked to watch a video about Turkish music, the place of Turkish music in flute education, and comment on the video. The students who watched the video commented on the video. Subsequently, a presentation prepared for the Turkish music rhythms (measure) was uploaded onto the board and they were asked to comment on the topics they wanted to ask or discuss about the subject. Through the comments made, a conversation group was created regarding the meter differences between Traditional Turkish Folk Music and Art Music. After all this theoretical information, the game prepared through the Wordwall application was added to the board and students were allowed to both test themselves and motivate themselves by playing the game.

During the teaching of folk songs, a video prepared for the content of the folk song "Ardıçtandır Kuyuların Kovası" was added to the board and the participants were asked to watch it. Afterward, the original video of the folk song, the video played with the flute, and the video of the rhythmic reading of the notes was added, and the students were given the task of uploading the audio recordings of their rhythmic reading to the board. At this stage, the participants preferred to send their voice recordings to the researchers via their individual WhatsApp accounts instead of uploading them onto the board. Finally, the exercises prepared for the folk song were uploaded onto the board and the students were asked to come to the face-to-face lesson having practiced it.

After the teaching, assignments, and practices conducted online and in the face-to-face lessons, firstly, the process and the folk song were talked about, and the students were asked about the parts of the folk song and practice exercises that they found most difficult. The difficulties the students experienced were focused on, their errors were corrected and the folk song was performed from beginning to end. At the end of the course, as a post-test video, the folk song was performed by the student one last time and video-recorded. A sample lesson plan prepared for teaching folk songs is presented in Table 2.

Table 2. A sample Lesson Plan

Subject:	Turkish Folk Music in flute training and the folk song "Ardıçtandır Kuyuların Kovası"
Duration:	Extracurricular videos: 1st video: 10 mins. 52 sec.; 2nd video: 2 mins. 46 sec.; 3rd video: 1 min.; 4th video: 1 min. 26 sec. In-class: 1 lesson hour (45 mins.)
Purpose:	Being knowledgeable about the folk songs that can be used in flute training, being able to sing folk songs in aksak meter correctly.v
Learning outcomes:	• Acquires knowledge about Turkish folk music and meters, • Knows the meters, region, and mode of the folk song "Ardıçtandır Kuyuların Kovası", • Performs the 9/8 aksak meter's rhythm patterns correctly, • Performs the folk song at a speed appropriate to its character, without hesitation and at a constant tempo, • Performs the nuances of the folk song correctly, • Performs the articulations of the folk song correctly, • Performs the breathing parts of the folk song correctly.
Teaching methods and techniques used:	Flipped Learning, explanation, demonstration, discussion, question-answer.
Materials used:	Flute, music stand, computer, Padlet, Wordwall, Prezi, video camera, sound recorder.
Preliminary preparations to be made by the Students:	The students are expected to come to class having watched the videos shared during the extracurricular process of the flipped learning model, read the presentations, participate in the game activity created for reinforcement purposes, and complete the homework assignments regarding their performances.

Table 2. Continued

Lesson Flow	
Exploration/Research	They talked about the extracurricular process and the issues that they did not understand, had difficulty with, or wanted to discuss. They talked about the folk song.
	• What did you think about the process of watching videos, playing games, and doing the homework?
	• Did you know this folk song before?
	• Have you ever played a folk song with the flute?
	• Did you like playing folk songs with the flute?
	• What were the difficult aspects of playing a folk song?
Concept introduction	Information regarding the number of measures was repeated. Questions were asked about the rhythm patterns in the folk song. Questions were asked about the region and mode of the folk song.
	• What was the measure number of the folk song?
	• What form of this measure number was used?
	• Was there any change in the form?
	• Which note values were used?
	• What was the region of the folk song?
	• What was the mode of the folk song?
Concept application	The folk song was performed. The difficult sections were analyzed. If necessary, rhythmic reading practice was carried out and the exercises given as homework were practiced. If necessary, the folk song, at its speed and with its nuances, was performed again from beginning to end.
Finalizing the Lesson	
Evaluation	As part of the post-test, folk songs were performed, relevant questions were asked and the whole process was video-recorded.
	• How do we name folk songs when we group them according to their melodies?
	• Which number of measures were both compound and aksak?

After performing the first folk song, the second folk song (Kırklar Samahı) was taught, in which the same steps were followed, and post-test videos were shot for evaluation. During this process, only face-to-face lessons were conducted with Group B. In these lessons, the participants had conversations with each other and information was given about the folk songs that were decided to be taught with the traditional method. After the folk songs were sight-read, the exercises were practiced and the folk song was performed again for the post-test.

After the two-week-long application, the contents were changed and given to the groups with the same process steps. Therefore, both groups were given the opportunity to perform the folk songs they learned both in flipped and traditional ways at different times.

Data Analysis

The quantitative data created from the study were obtained as a result of the evaluation of the post-test videos for each folk song by two different raters. The correlation coefficient was examined to establish the inter-rater reliability. Statistical operations were conducted with version 0.16 of the *Jasp* program used in quantitative data analysis. When the inter-rater agreement was examined, the correlation of the raters in the first folk song ($X_{ty}1$) was 0.947; in the second folk song ($X_{ty}2$) was 0.969; in the third folk song (X_g1) was 0.917 and in the fourth folk song (X_g2) was 0.918. In line with these results, it is clear that the scores given by the raters were compatible with each other.

The data obtained during the experimental process of the study was analyzed using *Jasp* version 0.16. In line with these data, Wilcoxon signed-rank test was conducted to determine whether there was a significant difference between the participants' performance levels in folk songs taught through the flipped learning model and those instructed using the traditional method.

The content analysis method was used in the analysis of qualitative data. In this analysis method, the data obtained are analyzed to create themes and codes. Content analysis is defined as "a systematic and repeatable technique in which a text is summarized by coding certain rules and categorizing some words to form smaller contents" (Büyüköztürk, Kılıç Çakmak, Akgün, Karadeniz, & Demirel, 2013, p. 259). At this stage, to ensure reliability, the data were analyzed by two researchers, and the percentage of consistency between analyzers was calculated. The formula "P (Percentage of Consistency) = Na (number of items coded the same in two forms) x 100/Nt (number of items collected in one form)" (Çepni, 2009) was used in the calculation. After the calculations, the consistency percentage was 80. The fact that this number was higher than 70 represented the consistency between the raters. The themes and codes, which were reviewed again after the consistency review, were given their final form.

To ensure the credibility of the qualitative findings, interview questions were prepared to minimize the researcher's biases, and these questions were presented to the field expert opinion in terms of their clarity and sufficiency in solving the issue. In the results section, participant opinions were included verbatim in the text, and participant names were not mentioned during the presentation of these opinions. Participant codes were created as Participant 1 (P1), Participant 2 (P2), etc. For the reliability level of the study, the relevant literature was reviewed in-depth, different data collection tools were created (rubric and interview form), and the method of the study was mentioned in detail. To increase the accuracy during the process and introduce multiple perspectives, the triangulation technique was used, and different researchers analyzed the data. For the confirmability step, participant confirmation was obtained after the interviews, and for the transferability step, the demographic information of the participants who formed the purposeful sample group was included in detail.

Results

In an attempt to answer the first sub-problem of the study "How do the flipped learning model applications contribute to flute students' performance level of the aksak meter folk songs?", it was tested separately whether there was a significant difference in the performance levels between the folk songs. Table 3 clearly illustrates that the Wilcoxon signed-rank test results between the first folk song ($X_{ty}1$) taught in the flipped learning model and the first folk song (X_g1) taught in the traditional learning model.

Table 3. Wilcoxon Signed-Rank Test Result between the 1st Folk Song ($X_{ty}1$) Taught in the Flipped Learning Model and the 1st Folk Song (X_g1) Taught in the Traditional Learning Model

Folk Songs	Measurements	N	Mean Rank	Rank Sum	Z	p
X_g1 - $X_{ty}1$	Negative Ranks	4	6.16	37		
	Positive Ranks	6	4.5	18	-0.968	0.359
	Ties					

As seen in Table 3, after the test, no statistically significant difference was observed between the performance scores of the $X_{ty}1$ folk song taught with the flipped learning model and the X_g1 folk song taught with the traditional method (z = -0.969, p = 0.359).

The Wilcoxon signed-rank test results comparing the first folk song ($X_{ty}1$) taught using the flipped learning model and the second folk song (X_g2) taught using the traditional learning model are presented in Table 4.

Table 4. Wilcoxon Signed-Rank Test Result between the 1st Folk Song ($X_{ty}1$) Taught in the Flipped Learning Model and the 2nd Folk Song (X_g2) Taught in the Traditional Learning Model

Folk Songs	Measurements	N	Mean Rank	Rank Sum	Z	p
X_g2 - $X_{ty}1$	Negative Ranks	10	5.5	55		
	Positive Ranks	0			-2.803	0.006
	Ties					

As seen in Table 4, after the test, a statistically significant difference was observed between the performance scores of the $X_{ty}1$ folk song taught with the flipped learning model and the X_g2 folk song taught with the traditional method (z = - 2.803, p<0.05).

Table 5 illustrates the Wilcoxon signed-rank test results between the second folk song ($X_{ty}2$) taught in the flipped learning model and the first folk song (X_g1) taught in the traditional learning model.

Table 5. Wilcoxon Signed-Rank Test Result between the 2nd Folk Song ($X_{ty}2$) Taught in the Flipped Learning Model and the 1st Folk Song (X_g1) Taught in the Traditional Learning Model

Folk Songs	Measurements	N	Mean Rank	Rank Sum	Z	p
X_g1 - $X_{ty}2$	Negative Ranks	9	5.5	49.5		
	Positive Ranks	1	5.5	5.5	-2.242	0.028
	Ties					

As seen in Table 5, after the test, a statistically significant difference was observed between the performance scores of the $X_{ty}2$ folk song taught with the flipped learning model and the X_g1 folk song taught with the traditional method (z = - 2.242, p<0.05).

The Wilcoxon signed-rank test result between the second folk song ($X_{ty}2$) taught in the flipped learning model and the second folk song (X_g2) taught in the traditional learning model is presented in Table 6.

Table 6. Wilcoxon Signed-Rank Test Result between the 2nd Folk Song Taught in the Flipped Learning Model ($X_{ty}2$) and the 2nd Folk Song Taught in the Traditional Learning Model (X_g2)

Folk Songs	Measurements	N	Mean Rank	Rank Sum	Z	p
X_g2 - $X_{ty}2$	Negative Ranks	10	5.5	55		
	Positive Ranks	0			-2.803	0.002
	Ties					

As seen in Table 6, after the test, a statistically significant difference was observed between the performance scores of the $X_{ty}2$ folk song taught with the flipped learning model and the X_g2 folk song taught with the traditional method (z = - 2.803, p<0.05).

After the tests were carried out separately for the folk songs, the overall average of the flipped learning model and the overall average of the traditional learning model were tested. The Wilcoxon signed-rank test result is illustrated in Table 7.

Table 7. Wilcoxon Signed-Rank Test Result for the General Average of the Flipped Learning Model and the General Average of the Traditional Learning Model

Folk Songs	Measurements	N	Mean Rank	Rank Sum	Z	p
X_g General - X_{ty} General	Negative Ranks	9	5	45		
	Positive Ranks	0			-2.666	0.009
	Ties	1				

As seen in Table 7, after the test, a statistically significant difference was observed between the performance scores of the folk songs taught with the flipped learning model and the folk songs taught with the traditional method (z = - 2.666, p<0.05).

In an attempt to answer the second sub-problem of the study, which was "What are the views of flute students about the application process of the flipped learning model?", interviews were held with the participants. These interviews, it was attempted to establish the feasibility of the participants' flipped learning model in flute education, its effect on their level of anxiety, its contribution to the performance of folk songs, its efficient use, its compatibility with practice habits, and the positive and negative opinions about this model. In this context, the students were asked to evaluate both the flipped learning model and the traditional learning model regarding their contribution to their performance in terms of instrument education. In line with the data obtained, the theme of "Contribution of the learning models to performance" was created. The sub-themes and codes of the relevant theme are presented in Figure 7.
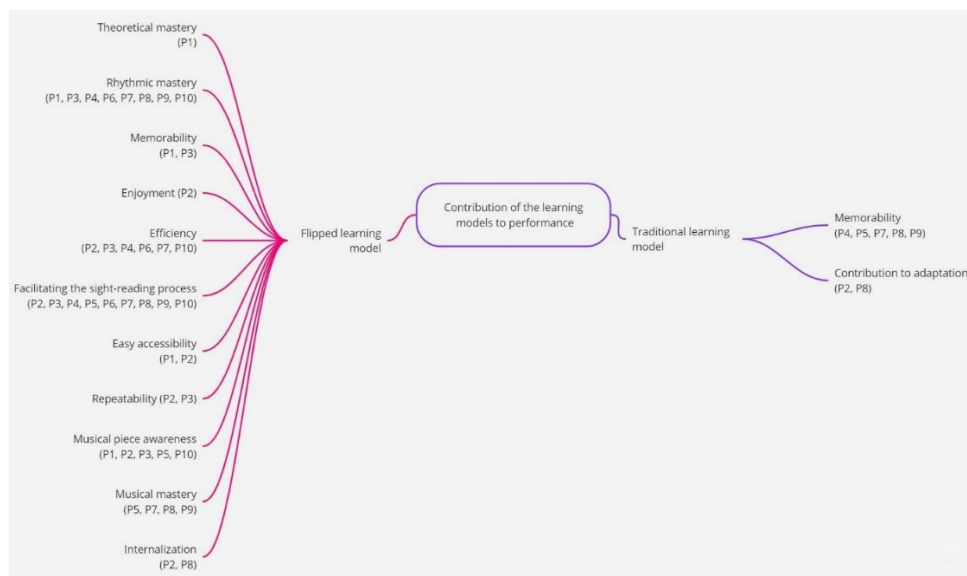

Figure 7. Participant Views on the Contribution of the Learning Models Used in the Experimental Process to the Performance of Folk Songs

As far as Figure 7 is concerned, it is clear that the participants regarded the contribution of the flipped learning model to performing folk songs as effective, especially in terms of facilitating the sight-reading process (9) and rhythmic mastery (8), and that they also mentioned the issues of efficiency (6), piece awareness (5), and musical mastery (4). Participants also stated that the process they carried out with the traditional learning model was more memorable and adaptable. Furthermore, P1 and P9 considered themselves more successful in the education implemented with the traditional learning model since they did not fulfill the requirements of the flipped learning model process and suffered from distraction as well.

Some participants' responses to the theme of "Contribution of the learning models to performance" are given below.

Participant 1: *"The flipped learning model helped my **rhythm** a lot because when I first played it without any knowledge of theory, I was stunned. I couldn't keep up with that rhythm, but when I received that **theoretical knowledge** beforehand, **I performed that musical piece better**."*

Participant 3: *"Watching makes more sense because I get the chance to watch the subject I have not understood **over and over again**. I think this is an advantage."*

Participant 7: *"In the flipped learning model, we learn about the musical piece in advance. Whether it is the audio recordings you send us or our listening to it being played on the flute, both sound familiarity and our efforts to practice it will definitely **shorten the sight-reading process**."*

Participant 9: *"**I am in favor of face-to-face education**, because I understand it better when someone teaches me something face-to-face. At the end of the day, there is someone in front of me and I pay attention to listen to him/her. However, when there is a video, my attention gets distracted by something else and I can ignore it by saying I'll watch it later. But when you teach it to me, the information becomes **more memorable** for me."*

To identify the effect of the performances carried out with the flipped learning model on the level of performance anxiety, questions were asked to the participants and the theme of "Level of Anxiety" was created from the answers obtained. The codes created in line with the participants' opinions are illustrated in Figure 8.
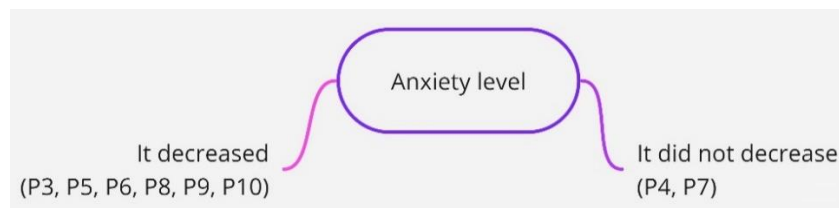

Figure 8. Participant Views on the Reduction of Performance Anxiety Level by the Flipped Learning Model Applications

When Figure 8 is examined, it is clear that 6 out of 10 participants in the study stated that the practice exercises implemented in line with the flipped learning model had positive results in reducing the level of anxiety. Nevertheless, two participants stated that the practice exercises conducted with this model were not effective on the level of anxiety or did not reduce students' anxiety.

The views of some participants regarding the theme of "Anxiety level" are as follows:

Participant 6: *"Yes, **it reduced it**. It's because I was already knowledgeable about it, it reduced my anxiety."*

Participant 4: *"**There was no such thing that would be impressive**. It is better to practice individually and then perform because one feels more comfortable when practicing individually. However, when working with you, correcting mistakes in the moment is more beneficial because you provide instant feedback."*

Participants implemented the flipped learning model in their flute education process for the first time. In the traditional learning model, homework is set in advance, but sample performances can be offered by the instructor in some cases. Nevertheless, even though it contains theoretical information prepared by their teachers, students are not given any material that will guide the sight-reading and practice processes. In this study, the participants were asked questions about whether they could use this model efficiently, which they implemented for the first time. The theme of "Efficiency" was created from the answers obtained. The sub-themes and codes for the "Efficiency" theme are shown in Figure 9.

Figure 9. Participants' Views on the Efficient Use of the Flipped Learning Model

As far as Figure 9 is concerned, it is clear that four participants used the flipped learning model efficiently and assessed this efficiency in terms of contributing to their performance levels and evaluation process, reinforcing, repeatable, and developmental, whereas 6 participants stated that they could not use the process efficiently. The participants who thought that they could not benefit from the process and model efficiently stated that they could not internalize the model and did not spare enough time for the extracurricular process, which was an important stage of the flipped learning model.

Some participants' views on the theme of "Efficiency" are as follows:

Participant 1: *"I think I used it **efficiently**. … Practicing it beforehand, that part, for instance, was very effective for me. "I think **I performed the piece better** because I practiced it."*

Participant 10: *"Yes, I think I benefited from it very well. It was also nice that there was a game at the end. In terms of completely selecting the information and **making the final evaluation**, I think it was also very good. I think I made good use of it."*

Participant 5: *"I once looked at them, they all remained that way. I didn't look back again, nor did I listen to it very memorably. **I didn't absorb** it very much."*

Participant 7: *"No, sometimes I did not look back at the questions you asked again. **It would be better** if you explained it and **I repeated it**."*

The participants were asked about the compatibility of the flipped learning model they applied during the experimental process with their daily practice habits and the theme of "Practice habit" was created from the answers obtained. The data regarding the relevant themes, sub-themes, and codes are presented in Figure 10.
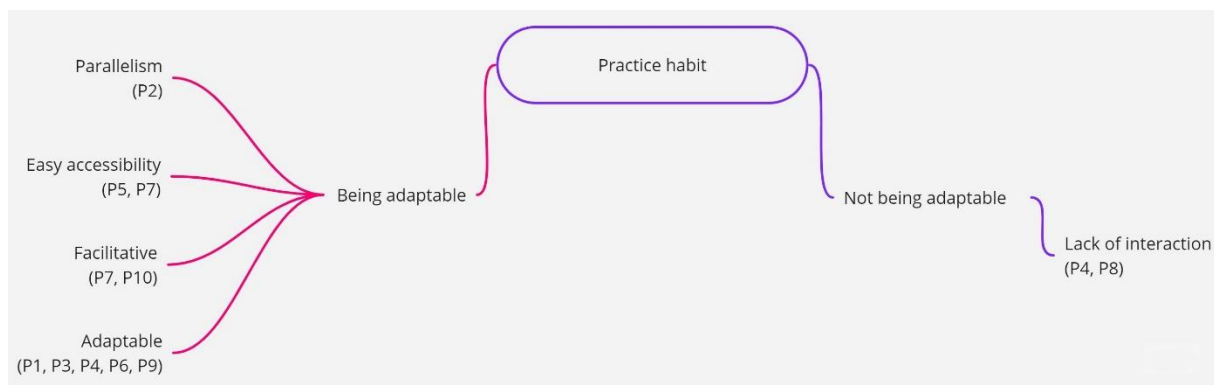

Figure 10. Participants' Views on the Compatibility of the Flipped Learning Model with their Practice Habits

When Figure 10 is examined, it is seen that, except for one participant, the other participants stated that the flipped learning model was compatible with their practice habits. When the figures for the themes of "Efficiency" and "Practice Habits" were examined together, it was revealed that some participants thought that even though they could not use the flipped learning model process efficiently, it was compatible with their practice habits. Moreover, two participants stated that there was a lack of interaction in the process.

The views of some participants regarding the theme of "Practice habits" are as follows:

Participant 5: *"Having resources available and being able to take a look at them whenever I want is **compatible** with my practice study style."*

Participant 8: *"I should get **in touch with you** first. This method is **not very compatible** with my practice habits."*

The participants were asked to state their positive and negative opinions about the flipped learning model and its usability in flute education. Of the questions asked in this context, "Do you think this method shortens the stages of recognizing, sight-reading, analyzing, and fixing the musical piece?" and "Do you think this method will contribute to the more accurate performance of the musical pieces in terms of notes, rhythm, nuance, and musicality?" All participants responded positively to the questions and stated that the method would both shorten the sight-reading process and contribute to the more accurate performance of the musical pieces. The "Views" theme was created from the data obtained from the positive and negative opinions about the flipped learning model and its usability in flute education. The codes for the relevant theme are illustrated in Figure 11.
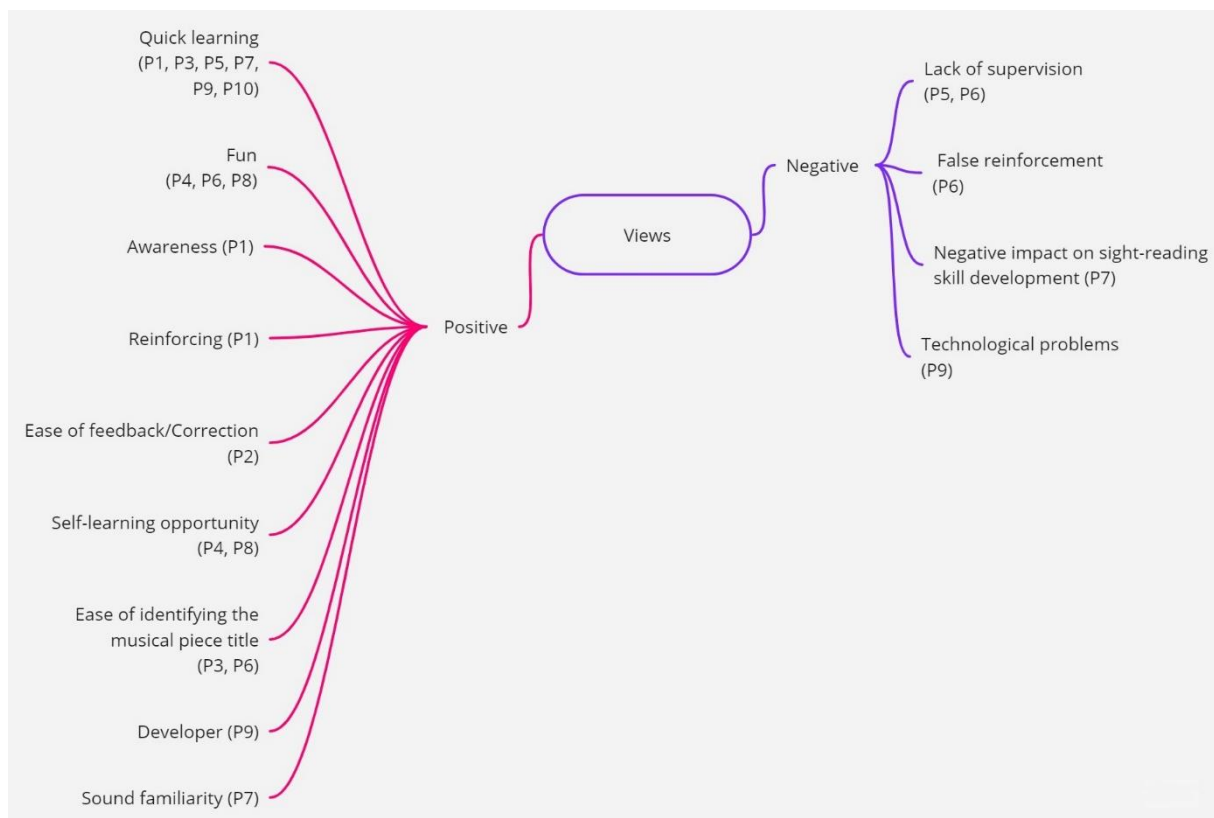

Figure 11. Participant Views on the Usability of the Flipped Learning Model in Flute Education

When Figure 11 is examined, it is clear that the participants had many positive opinions about the flipped learning model and the usability of this model in flute education. Consequently, the participants stated that this model supported quick learning, increased practice study awareness, reinforced self-learning, and described this method as fun, informative, reinforcing, and easy in terms

of giving feedback and recognizing the title of the work. Participant 7 evaluated the flipped learning model as both positive and negative in terms of creating sound familiarity with the musical piece to be practiced before the lesson. According to Participant 7, even though it made it easier for the student to have heard the musical piece before during the sight-reading process, this situation was regarded as a negative effect in terms of developing the skill of sight-reading a musical piece that he had never heard of. Furthermore, the irregular practice studies in the process, the fact that this situation allowed the possibility of incorrect reinforcement of the musical piece being practiced, and some technological disruptions were the other negative aspects observed by the participants.

Some participants' views regarding the "Views" theme are as follows:

Participant 1: *"As I said before, it helps to perform it **in a shorter time**. It allows you to play it more **consciously**. While we are playing, we also **reinforce** our theoretical knowledge."*

Participant 6: *"It can be a bit **negative** if you only focus on the piece without reading and understanding the theoretical information in detail. It's because we don't understand how to recognize the measure, we practice in the wrong way because we don't know where and what kind of aksakr rhythm comes from. **I think we are learning incorrectly**. It is possible to achieve if we understand and practice them carefully."*

Participant 7: *"Hearing the rhythmic reading of the folk song before analyzing or hearing it, or as I said, hearing the folk song itself played again, **make me more familiar with its sound**, which makes it easier. … For instance, my sight-reading is good, someone else's is bad, you know, someone whose sight-reading is bad should do work harder to improve his/her sight-reading before s/he hears the folk song."*

Participants were asked: "What are your suggestions for both students and instructors regarding the flipped learning model?" The theme "Suggestions" was created from the data obtained and the codes for the relevant theme are illustrated in Figure 12.
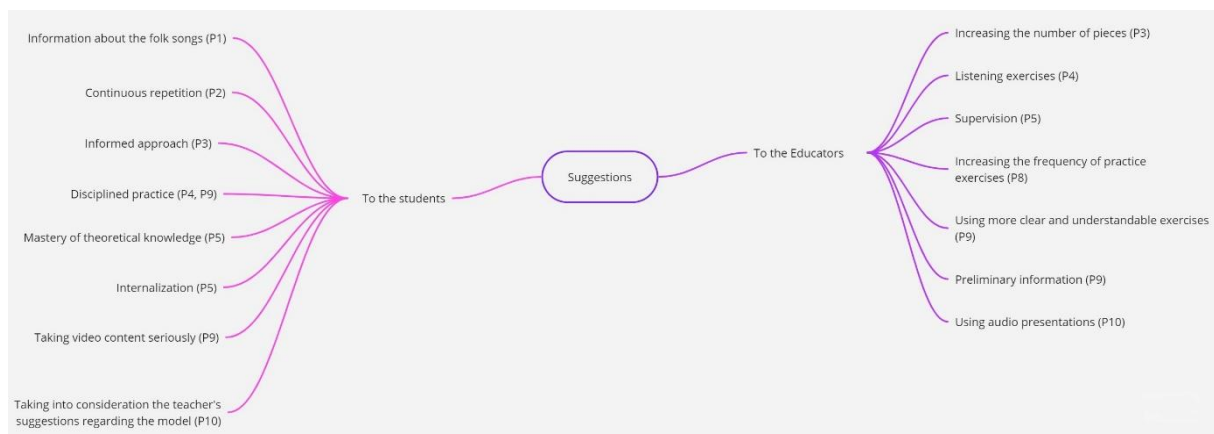

Figure 12. Participant Suggestions for the Use of the Flipped Learning Model in Flute Education

As far as Figure 12 is concerned, it is clear that the participants offered suggestions to the students regarding both their practice habit processes (constant repetition, conscious approach, disciplined study) and the need for them to internalize this approach, and the process should be taken into consideration. Furthermore, the participants made suggestions about increasing the number of similar practices to tutorials, supervising the students more seriously during the process, making the content more descriptive, and using audio presentations as well as presentations that required reading.

Some participants' views regarding the "Suggestions" theme are as follows:

Participant 4: *"They need to be more **disciplined** and work harder."*

Participant 5: *"My suggestion would be that students **absorb** it. They should also focus on the **theoretical knowledge** and try to absorb it."*

Participant 8: *"It can happen **more often**."*

Participant 9: *"... Beforehand, **preliminary information can be given**, such as, for instance, we will cover this topic next week in the lesson, ... **More understandable exercises**."*

Discussion, Conclusion, and Recommendations

In line with the results obtained from this study, when the performance levels of the folk song $X_{ty}1$ (Ardıçtandır Kuyuların Kovası) taught with the flipped learning model and the folk song X_g1 (Atlar Eğerlendi) taught with the traditional method were examined, it was found that these scores were in favor of the folk song taught with the flipped learning model, but the difference was not significant. It is believed that this result was because the rhythmic diversity in the folk song Atlar Eğerlendi was simpler than the other folk songs and that the majority of the rhythm patterns consisted of quarter and eighth notes.

Furthermore, when examining the performance levels of the folk song $X_{ty}1$ (Ardıçtandır Kuyuların Kovası) and the folk song X_g2 (Asmalı Mencere), $X_{ty}2$ (Kırklar Samahı) and X_g1 (Atlar Eğerlendi), as well as the performance levels of the folk song $X_{ty}2$ (Kırklar Samahı) and the folk song X_g2 (Asmalı Mencere), it was determined that there were a significant difference in favor of the folk songs taught with the flipped learning model. It is believed that this significant difference was because the teaching process conducted with the flipped learning model contributed positively to the students' learning process.

In the selection of the folk songs to be used in the application phase of the study, in Şenol Sakin's (2016) thesis application, the performance levels of the flute students in the pre-test phase of the relevant folk songs were taken as a basis and it was decided that the folk song "Ardıçtandır Kuyuların Kovası", which had the lowest success rate, and the folk song "Kırklar Samahı", which alternated in terms of the number of measures, were taught with the flipped learning model. Considering the variety of rhythm patterns and note values of the "Asmalı Mencere" folk song, which was taught with the traditional learning model, it may have affected the result obtained; therefore, it is believed that it was essential to conduct new studies by applying the a quasi-experimental counterbalanced design applied between the groups regarding the folk songs to contribute to the relevant fielded study.

As far as the results of the study are concerned, it was revealed that the general performance level score averages scores of the flipped learning model were higher than the general performance level score averages of the traditional learning model and the difference was significant. Similar results were obtained in many other studies conducted on the effect of the flipped learning model on knowledge level or performance. For instance, Bredow et al. (2021) conducted a meta-analysis of 317 studies on the question of whether the flipped learning model was an opportunity to develop higher taxonomy competencies or a pedagogical enthusiasm after secondary education. They concluded that it was superior to the traditional method. Similarly, Karagöl and Esen (2019) reported a similar result in their study and stated that the flipped learning model had a positive effect on academic success.

After the experimental process of the study, in line with the results obtained from the participants regarding the usability of the flipped learning model in flute education, it was found that the flipped learning model facilitated the sight-reading process in the process of performing the folk songs and contributed to rhythmic mastery, musical piece awareness, and musical mastery. A similar result emerged in Nergiz's (2022) thesis work. In her thesis work, Nergiz (2022) concluded that, following the implementation of a flipped learning model, students acquired proficiency in notation, rhythmic elements, and technical/musical skills. Sever (2014, p. 36) stated that in the violin education

she carried out in line with the flipped learning model, "the face-to-face lesson after the video was more unconstrained and productive as the individual had prior knowledge and practice about the lesson, thus allowing the focus on higher-level skills". This situation is parallel to the view that the flipped learning model facilitates the sight-reading process of the students.

To be taught in the experimental process of the study, the folk songs with aksak meter, which the students rarely encountered in the traditional flute repertoire, were specifically selected. In her thesis, Yalçınkaya (2010) identified the points where students had difficulty with the number of aksak meters. According to Yalçınkaya (2010), students experienced difficulties in terms of performance, especially in tempo and character, in songs with aksak meters. A similar result was revealed in Aytemur's (2019, p. 30) study, which reported that "students had difficulty with the beats specific to aksak rhythms, disrupting the tempo of the musical piece". In line with all these opinions, the study attempted to identify the students' hesitations and difficulties in performance and the effectiveness of the flipped learning model in performing the aksak meter folk songs containing a lot of rhythmic diversity. After the tests and interviews, it was concluded that the flipped learning model made a significant contribution to the performance of the folk songs in aksak meter. Topalak (2016) also reached a similar conclusion regarding the correct performance rhythms and revealed a significant difference between the post-test scores of the experimental group and the control group in favor of the experimental group.

Nevertheless, some participants thought that the flipped learning model process caused distraction and that the traditional learning model was more memorable. A similar opinion was expressed by the participants in Gündüz and Akkoyunlu's (2019) study, and it was reported that they could not focus on the videos, experienced confusion, and were less stimulating than the traditional lessons. Regarding the negative aspects of blended or flipped learning approaches, it was also stated that students might not adapt to these approaches or might not attach enough importance to online materials. Furthermore, this particular situation experienced in the study is parallel to Güneş and Yalın's (2017, p. 278) perspective that "one of the most important shortcomings of current online learning applications is their inability to take into account the different individual characteristics of students." Similar results emerged when participants were asked about the compatibility of the flipped learning model with their practice habits. In line with the results, it was found that the flipped learning model was compatible with the practice habits of the majority of the participants, while some participants thought that the flipped learning model was not compatible with their practice habits due to the lack of interaction. In line with these results, it is considered significant to take into consideration the interests and wishes of the students when planning the course teaching process, even if it will improve the level of academic success or performance success.

In the study, it was found that the applications implemented with the flipped learning model contributed to the reduction of the anxiety levels of the majority of the students. Similarly, Chen and Hwang (2019) concluded that foreign language education with the concept map-based flipped learning model could reduce speaking anxiety. Furthermore, in their study comparing gamification and flipped learning models, Parra-González, López Belmonte, Segura-Robles, and Fuentes Cabrera (2020) concluded that there was a significant decrease in students' learning anxiety in the studies where the flipped learning model was applied. Nevertheless, Korkmaz and Mirici (2021) concluded in their study that the flipped learning model did not have any effect on the students' foreign language course anxiety levels. In line with all these results, the flipped learning model applications can be an important model in eliminating not only the social anxiety and learning anxiety experienced by music students but also the performance anxiety they frequently encounter. Having said that, it is believed that a large-scale study should be conducted on the effect of the flipped learning model on the anxiety level of music students.

The conducted research has determined that the flipped learning model, efficiently integrated into the learning process by students, contributes to the process of performing and evaluating works. It has been identified as a model possessing reinforcing and enhancing characteristics. Similarly, Yıldız (2017) conducted a study with flute students. In this study, it was concluded that educational practices conducted through the flipped learning model contributed to motivation and were found to be effective and developmental (Yıldız, 2017). Yılmaz (2021) also obtained a similar result in his study with the guitar students. In his study, the participants described the flipped learning model as a model that increased their motivation and enabled rapid learning. Based on this, as previously mentioned, it is possible to argue that education tailored to a student's inclination and desire for the flipped learning model may prove beneficial for music students, particularly in the stages of performing musical works and, consequently, reinforcing their comprehension of newly acquired or challenging topics.

In the present study, students' positive opinions about the flipped learning model can be listed as supporting quick learning, increasing the practice study awareness, entertaining and reinforcing, and ease of giving feedback. Similar opinions were reported by the participants in Gündüz and Akkoyunlu's (2019) study in which they stated that there was a change in their practice habits. On the other hand, the ease of giving feedback, which was stated as a positive in the study, was stated as a negative opinion in Gündüz and Akkoyunlu's (2019) study, where students could not ask questions while watching videos and did not receive instant feedback. Furthermore, the lack of supervision and technological problems experienced in the extracurricular process appear as negative aspects of the education conducted in line with the flipped learning model approach, not only in this study but also in the relevant literature (Gündüz & Akkoyunlu, 2019; Yadav, Sankhla, & Yadav, 2021). Moreover, some participants also stated that the use of the flipped learning model in the instrument training process might hurt the development of sight-reading skills due to the possibility of false reinforcement for practicing the piece.

In line with all these results, it was concluded that the application of the flipped learning model, which was recommended for teaching folk songs in aksak meter in flute education, was an effective and entertaining model that contributed to rhythmic mastery, musical mastery, and quick learning, facilitated the sight-reading process, reduced anxiety, and was an effective and entertaining model.

In line with these considerations, it is recommended that students' interests should be taken into account when using the flipped learning model in the instrument training process, that the possibilities of false reinforcement should be minimized by creating control mechanisms in the extracurricular process, and that the process should be planned more carefully by the educators, taking into account the students' sight-reading skills.

It is believed that information about the composer, period style characteristics, genre, and form, which are the theoretical dimensions of the musical pieces to be performed during the instrument training process, can be easily learned by the students with materials prepared in the computer environment in the extracurricular learning step of the flipped learning model and as a result, there will be more time left for performance in the lessons. By incorporating the flipped learning model into the education process, the student will acquire both theoretical knowledge and technical and musical mastery of the work they will perform in a much shorter time. Therefore, it is recommended that the flipped learning practices be included in the instrument training process, at least for teaching, reinforcing, or repeating the theoretical subjects.

Furthermore, it is deemed essential to carry out experimental studies that deal with professional, general, and amateur music education for different instruments in which the flipped learning model is used in music education. It is recommended to create projects for experimental studies to be implemented and plan them with a wide range of participants, obviously using some financial support.

References

Acar, D. (2022). *Müzik öğretmeni adaylarının uzaktan çalgı eğitimine yönelik tutumlar* (Unpublished master's thesis). Bursa Uludağ University, Bursa.

Albuz, A. (2004). Müzik öğretmenliği eğitiminde çok boyutluluk. *Gazi Üniversitesi Gazi Eğitim Fakültesi Dergisi, 24*(2), 105-110.

Avcı Akbel, B. (2018). Students' and instructors' opinions on the implementation of the flipped learning model for cello education in Turkish music. *Journal of Education and Training Studies, 6*(8), 1-11. doi:10.11114/jets. v6i8.3256

Aytemur, B. (2019). Türk müziği eserlerinin teknik analizi yoluyla etüt besteleme B. Avcı Akbel (Ed.), *Güzel sanatlar eğitimi araştırmaları I* (pp. 13-36). Ankara: Akademisyen Kitabevi.

Bakhtiyorovna, N. G. (2023). Modern education methods and approaches in the teaching foreign language. *American Journal of Interdisciplinary Research and Development*, *12*, 229-235.

Batdı, V. (2023). Yapılandırmacı yaklaşım uygulamalarının karma-meta yöntemiyle incelenmesi. *Eğitim ve Bilim, 48*(213), 85-112. doi:10.15390/EB.2023.11774

Bredow, C. A., Roehling, P. V., Knorp, A. J., & Sweet, A. M. (2021). To flip or not to flip? A meta-analysis of the efficacy of flipped learning in higher education. *Review of Educational Research, 91*(6), 878-918.

Bükeç, B. (2003). *Müzik öğretim yöntemleri dersindeki kazanımların müzik öğretmenliği mesleğinde kullanılırlığın değerlendirilmesi* (Unpublished master's thesis). Bursa Uludağ University, Bursa.

Büyüköztürk, S., Kılıç Çakmak, E., Akgün, O. E., Karadeniz, S., & Demirel, F. (2013). *Bilimsel araştırma yöntemleri*. Ankara: Pegem Yayıncılık.

Chen, M. R. A., & Hwang, G. J. (2019). Effects of a concept mapping-based flipped learning approach on EFL students' English speaking performance, critical thinking awareness and speaking anxiety. *British Journal of Educational Technology, 51*(3), 817-834.

Cheng, Y. H., & Weng, C. W. (2017). Factors influence the digital media teaching of primary school teachers in a flipped class: A Taiwan case study. *South African Journal of Education, 37*(1), 1-12.

Creswell, J. E., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Thousand Oaks, CA: Sage.

Çepni, S. (2009). *Araştırma ve proje çalışmalarına giriş.* Trabzon: Celepler Matbaacılık.

Çevik, D. B. (2007). Müzik öğretim yöntemlerinden, Orff müzik öğretisine genel bir bakış. *Balıkesir Üniversitesi Fen Bilimleri Enstitüsü Dergisi, 9*(1), 95-100.

Çil, İ. (2018). *Geleneksel Türk müziğinin flüt ile icrasında ileri flüt tekniklerinden "mikroton sesler ve perde bükme" kullanımı* (Unpublished master's thesis). Ordu University, Ordu.

Çuhadar, C. H. (2016). Müzik ve müzik eğitimi. *Çukurova Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 25*(1), 217-230.

Dönmez, Ç. (2012). *Reşat Aysu'nun saz eserlerindeki flüt icra tekniklerine uygun ögeler ve flüt eğitiminde kullanılabilirliği üzerine bir araştırma* (Unpublished master's thesis). Gazi University, Ankara.

Dulkadir, D. (2011). *Güzel sanatlar ve spor liseleri flüt öğretim programında yer alan makamların uygulanma durumlarının araştırılması* (Unpublished master's thesis). Gazi University, Ankara.

El Miedany, E. Y. (2019). *Rheumatology teaching: The art and science of medical education*. New York: Springer.

Erdal, D. (2020). *Flüt eğitiminde peşrevlerin kullanılmasına yönelik öğretim elemanları görüşleri* (Unpublished master's thesis). Gazi University, Ankara.

Esmergül, P., & Çaydere, Ö. Ö. (2015). Müzik öğretim yöntemi konulu araştırmaların incelenmesi. *Akademik Bakış Uluslararası Hakemli Sosyal Bilimler Dergisi*, *51*, 398-413.

Fahy, E. (2023). Teacher perspectives on an arts initiative in schools: "Filling the pail or lighting the fire?". *Social Sciences & Humanities Open, 7*(1), 1-9.

Fitria, Y. J., Floriasti, T. W., Djohan, & Sittiprapaporn, P. (2020). Mind mapping tool increased critical thinking through blended learning. *Asian Journal of Medical Sciences, 11*(1), 42-50.

Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2012). *How to design and evaluate research in education* (7th ed.). New York: McGraw-Hill.

Fu, J. (2020). Analysis on the piano teaching mode of flipped class in higher education. *Frontiers in Educational Research, 3*(14), 128-133.

Glesne, C. (2015). *Nitel araştırmaya giriş* (5th ed., A. Ersoy ve P. Yalçınoğlu, Ed. & Trans.) Ankara: Anı Yayıncılık.

Gündüz, A. Y., & Akkoyunlu, B. (2019). Student views on the use of flipped learning in higher education: A pilot study. *Education and Information Technologies, 24*, 2391-2401.

Güneş, E., & Yalın, H. İ. (2017). Çevrimiçi öğrenme ortamlarında öğrencilerin düşünme stillerine göre düzenlenmiş farklı etkileşim tasarımlarının akademik başarı ve güdülenmeye etkisi. *Mustafa Kemal Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 14*(39), 275-299.

Hayırsever, F., & Orhan, A. (2018). Ters yüz edilmiş öğrenme modelinin kuramsal analizi. *Mersin Üniversitesi Eğitim Fakültesi Dergisi, 14*(2), 572-596. doi:10.17860/mersinefd.431745

Hill, S. C., Haning, M., Giotta, D. P., Nannen, B., Prendergast, J. S., Spears, A., … Wilson, J. (2023). Examining ensemble requirements for music education majors. *Journal of Research in Music Education*, *71*(2), 174-187. doi:10.1177/00224294221144254

Hwang, G. H., Chen, B., & Chia-Wen, S. (2019). Impacts of flipped classrooms with peer assessment on students' effectiveness of playing musical instruments – taking amateur erhu learners as an example. *Interactive Learning Environments, 27*(8), 1047-1061. doi:10.1080/10494820.2018.1481105

Jacot, M. T., Noren, J., & Berge, Z. L. (2014). The flipped classroom in training and development: Fad or the future?. *Performance Improvement, 53*(9), 23-28.

Jenkins, S. (2015). Flipping the introductory American politics class: Student perceptions of the flipped classroom. *PS: Political Science & Politics, 48*(4), 607-611. doi:10.1017/S1049096515000840

Juntunen, P. (2016). *Enjoy playing! ıntroducing a new technology-based together playing approach to complement traditional teaching in music schools: A study of an audio supported practice aid for first and second grade string instrument students* (Doctoral dissertation). Helsinki University, Helsinki.

Kanca, M., & Albuz, A. (2023). Viyolonsel öğretiminde flipped learning öğretim yönteminin işlevsellik durumuna ilişkin öğrenci görüşleri. *Akademik Sosyal Araştırmalar Dergisi, 11*(136), 329-350.

Kaplan, K., & Demir, M. (2023). Türkçe dersi öğretim programı'nın (2019) bağlam-girdi-süreç-ürün (cıpp) modeli ile değerlendirilmesi. *Trakya Eğitim Dergisi, 13*(1), 770-785.

Karagöl, İ., & Esen, E. (2019). Ters-yüz edilmiş öğrenme yaklaşımının akademik başarıya etkisi: Bir meta-analiz çalışması. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi, 34*(3), 708-727. doi:10.16986/HUJE.2018046755

Karavelioğlu Uzun, O. (2021). *Karadeniz türkülerinin flüt eğitiminde kullanılmasına yönelik bir çalışma* (Unpublished master's thesis). Ondokuz Mayıs University, Samsun.

Karavelioğlu Uzun, O., & Varış, Y. A. (2021). Karadeniz türkülerinin flüt eğitiminde kullanılmasına yönelik bir çalışma. *Socrates Journal of Interdisciplinary Social Studies*, *12*, 62-80.

Kardaş, F., & Yeşilyaprak, B. (2015). A current approach to education: Flipped learning model. *Ankara University Journal of Faculty of Educational Sciences (JFES), 48*(2), 103-122.

Kaya, O. Ç. (2018). *Türkiye'de müzik öğretim yöntemleri konusunda yapılmış lisansüstü çalışmaların incelenmesi* (Unpublished master's thesis). Cumhuriyet University, Sivas.

Kaybal, E. (2016). *Genel öğretim yöntem ve teknikleri ile müzik öğretim yöntem ve tekniklerinin ilişkisi* (Unpublished master's thesis). Kırıkkale University, Kırıkkale.

Kertz-Welzel, A. (2023). In search of a better world? Reconsidering sociology and music education as utopian fields. *Visions of Research in Music Education, 41*(1), 18-28.

Kocabatmaz, H. (2016). Ters yüz sınıf modeline ilişkin öğretmen adayı görüşleri. *Eğitim ve Öğretim Araştırmaları Dergisi, 5*(4), 14-24.

Konakcı, N. (2010). *Eğitim fakültesi güzel sanatlar eğitimi bölümü müzik eğitimi anabilim dalı öğrencilerinin bireysel çalgı eğitimi dersine yönelik tutumlarının incelenmesi* (Unpublished doctoral dissertation). Marmara University, İstanbul.

Korkmaz, S., & Mirici, İ. H. (2021). Converting a conventional flipped class into a synchronous online flipped class during Covid-19: University students' self-regulation skills and anxiety. *Interactive Learning Environments, 31*(9), 5746-5758.

Kurtaslan, Z. (2010). *Müzik öğretmeni yetiştiren kurumlardaki keman eğitiminde çağdaş Türk keman eserlerinin kullanılma durumuna ilişkin öğretim elemanı görüşleri* (Unpublished doctoral dissertation). Selçuk University, Konya.

Kuyumcu, K., Can, A. A., & Can, Ü. K. (2022). Mobil öğrenme ve ters yüz edilmiş sınıf modellerinin müzik ve çalgı eğitiminde kullanımı. *Akademik Sosyal Araştırmalar Dergisi, 10*(124), 277-299.

Lorenzo Quiles, O., Cárdenas Soler, R. N., Soares-Quadros, J. F., & Ortiz-Marcos, J. M. (2023). Curriculum and training analysis of the music degrees in Colombia. *International Journal of Music Education, 42*(2), 300-318. doi:10.1177/02557614231152310

Lv, W., & Zhao, S. (2019). Exploring the diversified teaching of piano classes in colleges and universities. *Advances in Social Science, Education and Humanities Research, 341*, 706-709.

McDonald, K., & Smith, C. M. (2013). The flipped classroom for professional development: Part I. Benefits and strategies. *The Journal of Continuing Education in Nursing, 44*(10), 437-438. doi:10.3928/00220124-20130925-19

Moberg, N. (2023). The place of master theses in music performance education in Sweden: Subjects, purposes, justifications. *Music Education Research, 1*(12), 24-35.

Nergiz, E. (2022). *Kadın bestecilerin solo piyano eserlerinin ters yüz öğrenme modeli ile piyano eğitiminde kullanılabilirliği* (Unpublished doctoral dissertation). Bursa Uludağ University, Bursa.

Ng, D. T. K, Ng, E. H. L., & Chu, S. K. W. (2022). Engaging students in creative music making with musical instrument application in an online flipped classroom. *Education and Information Technologies, 27*(1), 45-64. doi:10.1007/s10639-021-10568-2

Oktay, C. (2017). *Türkiye özengen müzik eğitiminde uluslararası sertifikalı müzik eğitimi programlarının işlevinin incelenmesi* (Unpublished master's thesis). Marmara University, İstanbul.

Öner, A. (2011). *Geleneksel Türk müziği öğelerinin flüt eğitiminde kullanılmasına yönelik bir model önerisi* (Unpublished doctoral dissertation). İnönü University, Malatya.

Özmenteş, G., & Bilen, S. (2005). Dalcroze Eurhythmics öğretiminin müziksel beceriler, müzik dersine ilişkin tutumlar ve müzik yeteneğine ilişkin özgüven üzerindeki etkileri. *İnönü Üniversitesi Eğitim Fakültesi Dergisi, 6*(10), 87-102.

Palazón-Herrera, J., & Soria-Vílchez, A. (2021). Students' perception and academic performance in a flipped classroom model within early childhood education degree. *Heliyon, 7*(4), 1-9.

Parra-González, M. E., López Belmonte, J., Segura-Robles, A., & Fuentes Cabrera, A. (2020). Active and emerging methodologies for ubiquitous education: Potentials of flipped learning and gamification. *Sustainability, 12*(2), 602. doi:10.3390/su12020602

Patton, M. Q. (2015). *Qualitative research & evaluation methods: Integrating theory and practice* (4th ed.). Thousand Oaks, CA: Sage.

Peng, Q. (2019). The development of piano micro teaching and flipped classroom in the era of "internet+". In D. Guo (Ed.), *2019 Asia-Pacific Conference on Advance in Education, Learning and Teaching* (pp. 396-400). China: Francis Akademic Press.

Peng, Y., & Wang, X. (2022). Online education of a music flipped classroom based on artificial intelligence and wireless network. *Wireless Communications and Mobile Computing*, *2022*, 1-9. doi:10.1155/2022/9809296

Roehl, A., Reddy, S. L., & Shannon, G. J. (2013). The flipped classroom: An opportunity to engage millennial students through active learning strategies. *Journal of Family & Consumer Sciences, 105*(2), 44-49.

Savuran, A. (2022). *Bireysel çalgı flüt derslerinde geleneksel Türk müziğinin kullanılma durumunun incelenmesi* (Unpublished master's thesis). Atatürk University, Erzurum.

Sever, G. (2014). Bireysel çalgı keman derslerinde çevrilmiş öğrenme modelinin uygulanması. *Eğitimde Nitel Araştırmalar Dergisi, 2*(2), 27-42.

Shu, T. (2018). Application of mooc-based flipped classroom in the teaching reform of piano course. *Educational Sciences: Theory & Practice, 18*(5), 2494-2500.

Soykunt, N., Çoban, S., & Öztuğ, E. K. (2023). The effect of music classes conducted in northern Cypriot schools with the Kodály approach on the musical development of students: A pilot study. *Empirical Studies of the Arts*. doi:10.1177/027623742311568

Sungurtekin, K. M. (2002). Eğitim fakülteleri müzik eğitimi bölümlerindeki piyano eğitiminde çağdaş Türk piyano müziği eserlerinin yeri. *Gazi Üniversitesi Gazi Eğitim Fakültesi Dergisi, 22*(3), 59-68.

Şenol Sakin, A. (2016). *Geleneksel Türk halk müziğinde kullanılan aksak ölçülü türkülerin flüt eğitimindeki zorluklarının incelenmesi* (Unpublished doctoral dissertation). Gazi University, Ankara.

Talbert, R. (2017). *Flipped learning: A guide for higher education faculty*. Sterling, VA: Stylus Publishing.

Tepe, C., & Yokuş, T. (2023). Müzik öğretmeni adaylarının güzel sanatlar lisesi bireysel ses eğitimi dersi kazanımlarına ulaşma düzeyleri. *Eurasian Journal of Music and Dance*, 21, 31-49.

Topalak, Ş. (2016). *Çevrilmiş öğrenme modelinin başlangıç seviyesi piyano öğretimine etkisi* (Unpublished doctoral dissertation). İnönü University, Malatya.

Topalak, Ş. (2022). Çevrilmiş öğrenme modelinin başlangıç düzeyi piyano eğitimine etkisine yönelik öğrenci görüşleri. *Kalem Eğitim ve İnsan Bilimleri Dergisi, 12*(2), 571-594.

Tuisku, V., & Ruokonen, I. (2017). Toward a blended learning model of teaching guitar as part of primary teacher training curriculum. *The European Journal of Social & Behavioral Sciences*, *10*, 2520-2537.

Tung, K. Y., & Satya, N. G. (2023). Improving the understanding of reading rhythm and notes in music education by using Kodály and Suzuki technique method in grade 8 junior high school xyz. *Journal on Education, 5*(2), 1972-1987.

Türkel, L. (2015). *Flüt eğitiminde makamsal dizilere göre bestelenmiş etütlerin icraya yönelik etkileri* (Unpublished master's thesis). Atatürk University, Erzurum.

Türkel, L., & Şen, Y. (2015). Türkiye'de müzik eğitimi veren kurumlarda, çağdaş Türk müziği flüt öğretimi uygulamalarına yönelik uzman görüşleri. *Sanat Eğitimi Dergisi, 3*(2), 57-81.

Varner, E. (2022). Mindfulness access points in general music: Singing, breathing, and self-awareness. *Journal of General Music Education, 35*(2), 43-46.

Vélez, B., Verdugo, G., Mejía-Pesántez, M., Veintimilla-Reyes, J., & Maldonado-Mahauad, J. (2020). Playing in the classroom: A game proposal for the flipped classroom. In *20th Conferencia Latinoamericana de Tecnologias de Aprendizaje (LACLO)* (pp. 1-7). doi:10.1109/LACLO50806.2020.9381163

Wang, H. (2018). The application of flipped classroom in Colleges and Universities piano collective classes. *Creative Education, 9*(7), 1021-1026.

Yadav, A., Sankhla, M., & Yadav, K. (2021). Teachers' perception about flipped classroom in era of Covid-19 pandemic. *Studies in Learning and Teaching, 2*(2), 26-34.

Yalçınkaya, B. (2010). *Flüt eğitiminde geleneksel Türk müziği eserlerinin seslendirilmesine yönelik oluşturulan etüt yazma modeli ve bu modelle bestelenen özgün etütlerin öğrenci başarısı üzerine etkileri* (Unpublished doctoral dissertation). Gazi University, Ankara.

Yıldız, Y. (2017). *Flüt eğitiminde ters yüz öğrenme modelinin öğrencilerin akademik başarıları motivasyonları ve performansları üzerine etkisinin incelenmesi* (Unpublished doctoral dissertation). Marmara University, İstanbul.

Yıldız, Y. (2020). Examining the effect of flipped learning model in flute education on motivation and performance of students. *Ilkogretim Online, 19*(4), 2347-2369.

Yılmaz, E. O., & Şimşek, N. (2022) Examining the effectiveness of discussion-oriented flipped learning environments [Special issue]. *International Journal of Assessment Tools in Education*, *9*, 146-161.

Yılmaz, H. (2021). *Ters yüz öğrenme modeline dayalı gitar eğitimi ve eşlikleme dersinin motivasyona, tutuma ve eşliklemeye etkisi* (Unpublished doctoral dissertation). İnönü University, Malatya.

Yoshida, H. (2019). Flipped learning for pre-service teacher education: With focus on instructional design for elementary and secondary education. In *13th International Technology, Education and Development Conference* (pp. 5718-5727). Valencia. doi:10.21125/inted.2019.1407

Yücetoker, İ. (2015). Güzel sanatlar eğitimi öğrencilerinin sanat okuryazarlığı düzeylerinin değerlendirilmesi. *Ekev Akademi Dergisi*, 62, 669-676.