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Research Article

Effects of flipped learning-based guitar instruction on motivation, attitude, and accompaniment skills

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The purpose of this research is to determine the effects of flipped learning-based guitar instruction on students' motivation, attitude, and accompaniment skills. This experimental study consisted of 26 students who were attending the lectures at Fine Arts Education Department of Music Teaching. A random sampling technique was employed to select 14 students for the experimental group and 12 students for the control group. Data collection tools used included instrument motivation scale, attitude scale towards instrument, and guitar accompaniment evaluation form. During the twelve-week intervention, both the control group and the experimental group trained for one hour each week. Students in the experimental group performed significantly higher accompaniment skills than students in the control group. The flipped learning model was found to be more effective than traditional learning method. Based on the results of the study, some recommendations were made for future studies.

Keywords: Flipped learning; Guitar instruction; Accompaniment; Motivation and attitude

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1. Introduction

Instrument training is the desired changes in the field of music to improve one's technical skills for playing an instrument (Michałko et al., 2022; Uslu, 2006). Instrument education, which is one of the dimensions of music education, can be expressed as the learning process and the systematic acquisition of some skills to play the instrument, and the process of gaining aesthetic direction in knowledge, skills and behaviours (Juslin et al., 2021; Schleuter, 1997; Uludağ, 2012). Objectives and targets should be determined systematically in the instrument teaching program. Learning an instrument requires disciplined study, good time management, and the use of new learning models within the framework of activities. In every area of life and at every stage of life, music and instruments are indispensable. The guitar is an instrument that has oval strings on its sides, has at least 17 registers, has six or more strings, can be played with fingers or picks, has an auger for tuning, an upper transition for strings, a lower bridge, a lower transition, and a sound hole, and a frame that resembles an eight symbol. A guitar education is the process of gaining knowledge and skills in one's musical life while also vocalizing the instrument with general techniques and characteristics (Akçay, 2011; Kanneci, 2005).

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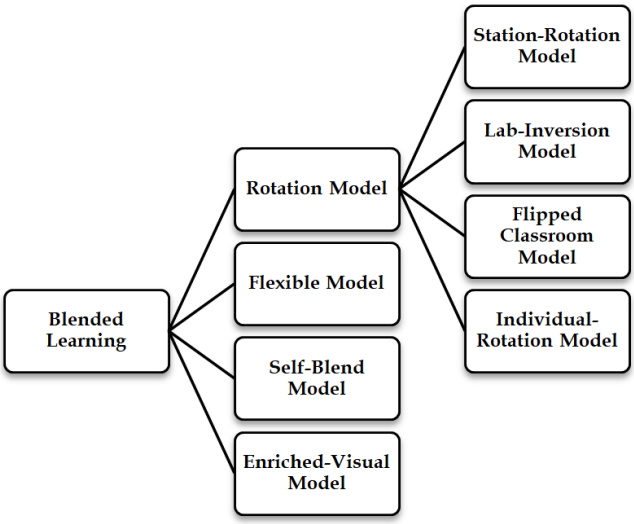
The guitar can be used as a solo and accompaniment instrument in education. The guitar, which can be used as an accompaniment instrument, is always advantageous due to its easy accessibility and polyphonic structure. Accompaniment is the whole of sounds that can help the main melody of a song and create harmony (Bilgin, 1998; Say, 1985). In their professional lives, music educators need the proper equipment and skills to accompany the songs in textbooks. The instructor's willingness to do his job is essential for this purpose. An individual's motivation status determines this desire. Music education is interconnected with motivation and performance. An individual who is motivated is one who wants to perform an existing job on their own accord without being obligated to do so. Seiler et al. (2012) stated that motivation is derived from the word "Movere", which means to move. Attitude is also an important behaviour along with motivation in music and instrument education. Attitude can be stated as displaying behaviour towards any event (İnceoğlu, 2011), centering one's feelings with events and thoughts (Bordens & Horowitz, 2008), determining a perspective on lived situations (Chapman, 2011), being psychologically dissatisfied at a certain level (Eagly & Chaiken, 1993). Instrument education is a method that takes place in music education and gains outcomes through practice. For this reason, it is important for the individual to have a positive attitude towards the instrument. Konakçı (2010) explained that showing a positive attitude towards one's instrument can lead to a positive improvement in one's goals and behaviours. Since each individual's learning ability is different, the attitude of the students who received guitar education and accompaniment education with the flipped learning model, which is a new learning model, towards the instrument aroused curiosity.

Learning is a permanent change in behaviour that is visible through the individual's own experience, which occurs through interaction with the environment and creates the ability to behave in a learned way (Senemoğlu, 2012; Schunk, 2012; Ulusoy, 2006). With the constructivist approach to education in the 21st century, individual learning has been prioritized using a variety of learning models (Boyraz, 2014). Technology has created new learning-teaching methods and new designs for learning models that will support instructors' lessons and students' cognitive abilities with the help of the internet. Today, education takes place not only in face-to-face settings, but also online. As part of blended learning, which is designed for educational purposes, the internet is used to support educational environments. In addition to new learning models and content, the necessity of student-teacher interaction has evolved in learning environments with emerging changes (Gürdoğan & Bağ, 2019; Zainuddin & Halili, 2019).

The term blended learning refers to learning programs that are used to reach more places from one place in order to reduce the cost of programmed learning (Singh & Reed, 2001). Many models such as web-based, distance education, online learning, video learning are known in almost all secondary and higher education institutions in the world. One of these models is the "Flipped Learning Model", which is included in the blended learning model. The flipped learning model is included in the rotation model category within the blended learning model. The blended learning model taxonomy designed by Staker and Horn (2012) is as shown in Figure 1.

The flipped learning model, which includes technology, is a blended model of face-to-face education and simultaneous learning environments (Gençer et al., 2014; Koçak, 2019). The flipped learning model is a teaching model, in which the course and homework elements of a normal school are reversed (Educause, 2012). In a classroom environment, direct teaching takes place in an individual learning environment, and the activities of group learning environments are considered interactive and dynamic (Bergman & Sams, 2014). In this way, direct instruction becomes a form of individual and group learning, which is creative and pedagogical, and it is applied with interactive learning (Flipped Learning Network [FLN], 2014b). Prior to the lesson, it provides students with information such as comprehension, understanding, and focusing (Görü-Doğan, 2015). It combines blended, computer-assisted, inquiry-based learning approaches, pursues active learning, is flexible, effective and allows students to integrate together (Johnson et al., 2014).

Figure 1
Blended Learning Model



Note. The figure was adapted from Staker and Horn (2012), p. 2.

Students in this model, which focuses on individual learning, research topics before the lesson at home via video lessons, slide shows, Word, etc., and practice, projects, or discussions are included in the classroom. The course teacher designs videos and other resources. By combining direct instruction with practice in the classroom, lessons are reinforced and high-level learning occurs (Bergman & Sams, 2014; Educause, 2012). FLM is a teaching model in which the education process is reversed, the work to be done at school should be at home and the work at home should be at school, taking into account the individual differences of the student (Aydın & Demirer 2016; Görü-Doğan, 2005; Lage et al., 2000).

The model, which is used with names such as "Flipped Learning", "Flipped Classroom" and "Inverted Learning" in the international literature, is used in Türkiye with the names "Flipped Learning Model", "Flipped Classroom System", "Inverted Learning Model", "Homework at School Lesson at Home" and "Inverted Classroom Model" (Demiralay-Yiğit, 2014; Gençer et al., 2014; Hayırsever & Orhan, 2018; Karadeniz, 2015; Sever, 2014).

The word FLIP is included in four basic components consisting of its initials (FLN, 2014a). These initials respectively stand for flexible environment, learning culture, intentional content and professional educators. The Flexible Environment emphasizes flexibility with their individual speed and skills in the pre-lesson preparation stage to reach information regardless of time and place. In the Learning Culture, the topic for the lesson is chosen by the students and a learning environment is created by discussing the subject in depth. It is the students' responsibility to share the information with their friends consciously and voluntarily. Using Intentional Content, teachers plan the lessons and deliver the materials using technology to students. It is important for the teacher to have a good understanding of the subject and to understand what the student is going to do. Professional Educators guide students in the classroom by participating actively in the learning process. In order for the teaching process to reach a higher level, teachers should constantly renew themselves and use technology (FLN, 2014a).

1.1. Advantages of Flipped Learning Method

In flipping learning, you can teach anywhere, regardless of the setting (Fulton, 2012; Kaya, 2018; Talbert, 2012). Additionally, student interaction increases during class time (Bergmann & Sams, 2014), and groups are formed with certain learning models (Fulton, 2012; Herreid & Schiller, 2013). It is important to emphasize practice and the processing of the new subject during the lesson, rather than repeating a previously taught lesson (Miller, 2012). Since individual learning is at the forefront, students' performance and motivation can increase (Bergmann & Sams, 2014; Bishop &

Vergeler, 2013), and communication can be strengthened (Bergmann & Sams, 2012). It is easy for the tutor to control and follow the learner (Fulton, 2012; Herreid & Schiller, 2013). The flipped learning model can increase academic achievement (Fulton, 2012; Çevikbaş, 2018; Özdemir, 2016). A student who cannot follow the lesson can make up for it later (Talbert, 2012). Students know their own responsibilities (Foust, 2012; Herreid & Schiller, 2013; Talbert, 2012), hence the student's sense of self-confidence in learning can increase (Bergmann & Sams, 2014).

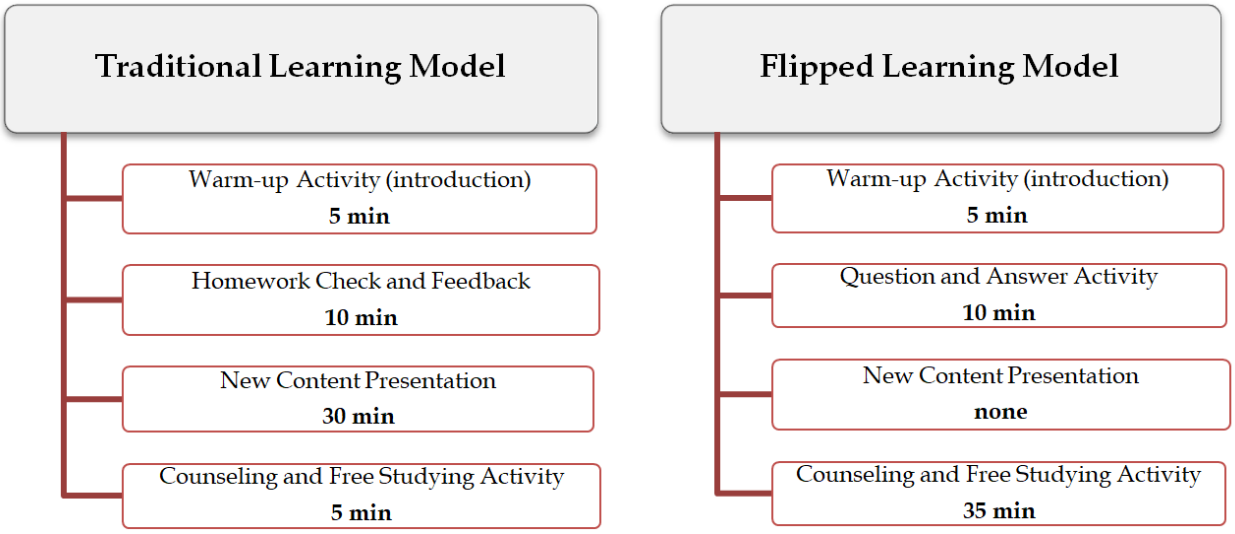
1.2. The Limitations of Flipped Learning Method

The implementation of the method requires both the teacher and the students to have a certain technological equipment and competence (Roach, 2014; Kaya, 2018). Students may find pre-preparation difficult and cumbersome (Ruffini, 2014). Students who are accustomed to receiving information from the teacher and have low motivational success may find it difficult to adapt to this method (Roach, 2014). The student may not have access to the necessary tools and materials (Çevikbaş, 2018; Demiralay-Yiğit, 2014; Ruffini, 2014; Turan & Göktaş, 2015). When the student learns the pre-planned lesson asynchronously, if he/she cannot reach the teacher and does not get feedback, it negatively affects the quality of teaching and may experience problems for this reason (Talbert, 2012). Students may have certain difficulties in learning theoretical and abstract subjects. When the students do not come to the lesson prepared, they may have problems with the activities in the classroom (Bergmann & Sams, 2014). The students may have problems when they do not know the purpose of the flipped learning model. Moreover, it can be difficult and troublesome for teachers to follow students (Krueger, 2012; Roach, 2014). It can be difficult to dominate the class for activities to be done in crowded classroom's (Krueger, 2012). The fact that the teacher creates new content every week can force the teacher in terms of workload (Bergmann & Sams, 2014; Bolat, 2016; Bolatlı, 2018; Fulton, 2012; Gençer, 2015; Herreid & Schiller, 2013; Miller, 2012; Zownorega, 2013).

1.3. Comparison of Flipped Learning and Traditional Learning Model

A traditional learning model involves the teacher being actively involved, while a flipped learning model involves the student being actively involved. Figure 2 presents the comparison of the flipped learning model with the traditional learning model.

Figure 2
Comparison of the Traditional and Flipped Classroom Models



Note. The figure was adapted from Bergmann and Sams (2012).

According to Figure 2, flipped learning model allows more practice compared to the traditional classrooms. In traditional learning, delivering the content of the new lesson requires more time during the lesson and a very short amount of time is allocated for the practices.

1.4. The Aim

The aim of this research is to determine the effect of the flipped learning model on motivation, attitude and accompaniment of the guitar education students in their third year of music teaching.

2. Method

2.1. Design of the Study

In this study, a pretest-posttest randomized experimental design was used. The purpose of this design is to randomly assign students in the experimental and control groups, and to test the effectiveness of the application before and after the experimental group to be applied. It is a test of the intervention result of an action. It is mandatory to apply the same measurements to both groups (Büyüköztürk et al., 2016; Creswell, 2017; Fraenkel et al., 2011). In experimental studies, different methods are applied in both groups. The effect of the experimental group is measured. As a result, the impact of cause-effect between the two groups is compared (Can, 2017).

2.2. Participants

Participants of the research consists of 3rd grade undergraduate students (n=26) who took guitar education and accompaniment course in Department of Music Teaching. Demographic characteristics of the experimental and control groups are shown in Table 1.

Table 1
Demographic Characteristics of the Participants

	Experimental group	*Control group*	*f*
Gender			
Female	5	7	12
Male	9	5	14
Education Status			
Fine Arts High School	5	3	8
Other	9	9	18
Familiarity with Playing Guitar			
Yes	2	1	3
No	12	11	23
Main Instrument			
Piano	3	0	3
Violin etc.	5	5	10
Saz (long-short)	3	5	8
Flute	1	2	3
Other (oud)	2	0	2
Total	14	12	26

Five of the participants in the experimental group are female and nine are male, while seven of the students in the control group are female and five are male.

2.3. Determination of Experimental and Control Groups

Instrument motivation, instrument attitude and guitar accompaniment scales were used to ensure the equality between the groups in the formation of the experimental and control groups. In order to determine the equivalence of the experimental and control groups, the descriptive statistical analysis of the pre-test scores and the Mann-Whitney U test results are shown in Table 2.

Table 2 shows that no statistically significant difference was found between the experimental and control groups' instrument motivation, instrument attitude and accompaniment skill pre-test scores ($p > .05$). According to this finding, the scores of the experimental and control group students are equivalent to each other.

Table 2
Mann-Whitney U Test Results of Motivation, Attitude and Accompaniment Skills

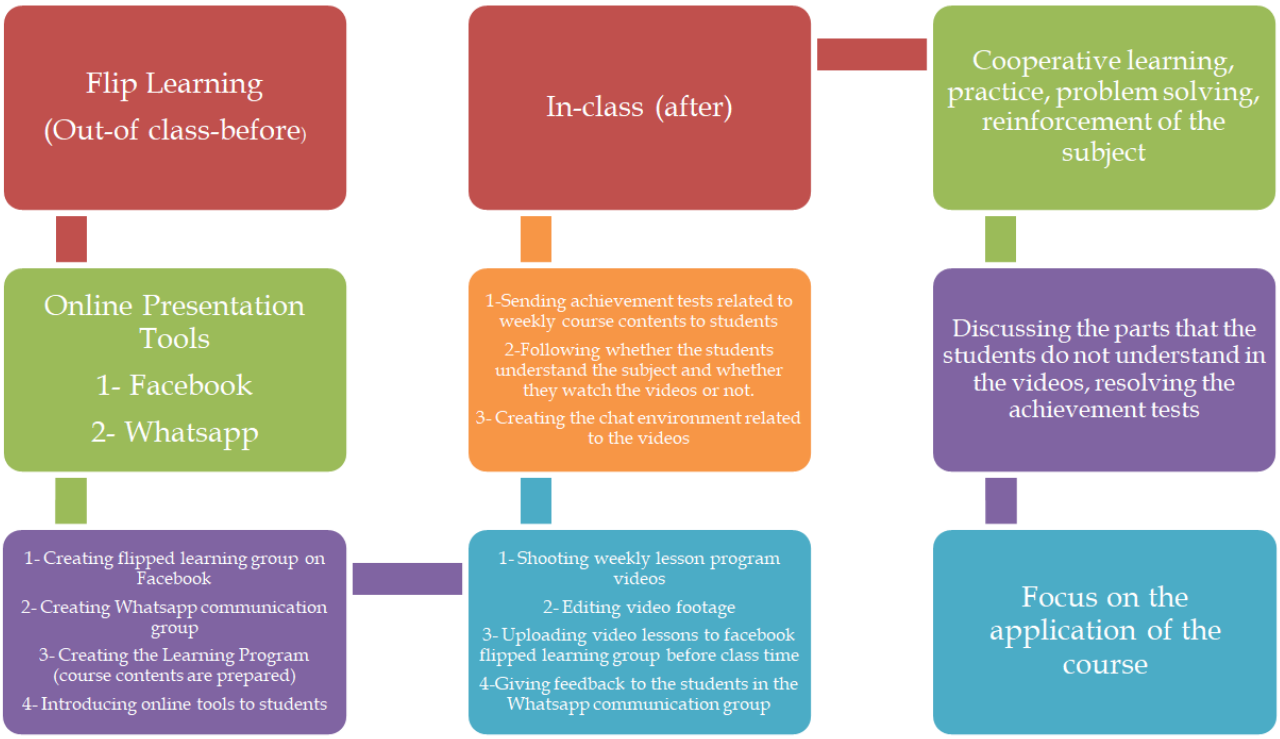
Motivation	*N*	*Mean*$_{pre}$	*SD*	*MR*	*SR*	*U*	*z*	*p*
Experimental	14	76.28	8.78	14.25	199.50	73.50	−.54	.58
Control	12	76.25	5.84	12.63	151.50			
Attitude								
Experimental	14	81.21	4.97	12.14	170.00	65.00	−.98	.32
Control	12	87.50	15.64	15.08	181.00			
Accompaniment								
Experimental	14	17.80	2.91	13.18	184.50	79.50	−.264	.79
Control	12	18.28	4.58	13.88	166.50			

Note. MR: Mean rank; SR: Sum of ranks

2.4. Study Process

Experts were consulted in order to create a weekly lesson program of twelve-week guitar education based on the flipped learning model, which was applied first to the experimental group. After the experimental group was granted permission to conduct the study, the materials for the experimental application were prepared and application phase began. The experimental group students were given access to a social media platform on Facebook and a WhatsApp communication group. Before the lesson time and day, videos were shot and edited on the Facebook platform for the experimental group students, and then uploaded. A 12-week experiment was conducted by the researcher for one hour with the control group and one hour with the experimental group. Every week, lessons were recorded on video. A post-test was conducted after the twelve-week implementation process followed by an evaluation and scoring of student videos by field experts. Implementation process is summarized in Figure 3.

Figure 3
Implementation program



2.5. Data Collection Tools

Data collection was conducted using the *Guitar Accompaniment Evaluation Form*. A technical evaluation and a musical evaluation comprise the form. On the evaluation form, 16 items of a

Likert scale, aimed at assessing technical and musical aspects of guitar and accompaniment, were rated from 1 to 5. The items have been prepared in order to evaluate etudes, works, and accompaniments in more detail. All etudes, works, and songs were evaluated using the same form. This form was evaluated by an expert in the fields of Measurement-Evaluation in Education, Curriculum and Instruction, and classical guitar. Students' accompaniment was evaluated by three lecturers who are classical guitar experts. Field experts were contacted on the internet about the video recordings of the experimental and control group students in the study group as well as the Guitar Accompaniment Evaluation Form, and the results were obtained from the field experts. Kendall's Coefficient of Concordance was examined in the evaluations of different faculty members.

Kendall's Coefficient of Concordance (Kendall's W) is a non-parametric test that tests the evaluations made by more than two evaluators on a group, on the basis of ranking, whether there is a significant agreement among them. Evaluation for this test is made not according to the point value of the evaluated, but according to their place in the ranking formed according to the points given by the evaluators (Can, 2017, p. 405).

Table 3
Kendall's Coefficient of Concordance Results for the Guitar Accompaniment Evaluation Form

	Test	*Kendall's W*		
Accompaniment		K-W	N	p
Experimental	Pre-test	.984	14	.00
	Post-test	.856	14	.00
Control	Pre-test	.990	12	.00
	Post-test	.830	12	.00

In the evaluation made by three different raters for the experimental and control groups in the guitar education and accompaniment evaluation form, a statistical agreement between the scores have been observed.

In the study, the *Individual Instrument Lesson Motivation Scale* developed by Girgin (2015) was used in order to examine the motivation of students towards individual instrument lessons. As a result of the exploratory factor analysis, it was determined that the scale consisted of 25 items and had three sub-dimensions. Scoring for the scale is made in a 5-point Likert type from.Cronbach Alpha coefficient values of the sub-dimensions of the scale are respectively .90, .88, and .76 for lack of motivation, motivation for success, and motivation to study, respectively. The Cronbach Alpha value of the whole scale is .77. The Cronbach Alpha values obtained within the current research are .66 and .67 for the pre-test and post-test, respectively.

The validity and reliability studies of the "Attitude towards the Instrument Scale" developed by Topoğlu and Erden (2012) were applied by the researchers on 265 undergraduate students. The analysis of the research resulted in a total of 27 item-scale. The Cronbach Alpha coefficient of the single-factor scale is .95. In this study, Cronbach Alpha coefficient was found to be .81.

2.6. Data Analysis

Data from the quantitative analysis were entered into a computer program for analysis. After examining the reliability level among raters, the average of the values given by the raters for each student was taken. After this stage, normality assumptions were tested. In this respect, Shapiro-Wilks ($n < 50$) test, skewness- kurtosis values and normal distribution curves were examined. Mann-Whitney U and Wilcoxon signed-rank tests were used because scores showed extreme deviations from normal distributions. Cohens' d and z values were used for effect sizes. The formula "$r = Z/2\sqrt{N}$" was used for the effect size in the Mann-Whitney U and Wilcoxon signed-rank tests (Field, 2009; Pallant, 2020). A value of .05 was taken as a reference for the significance level. For other values, explanations were made by specifying the interpretation reference values for each test.

Effect size is the statistical value that shows the level of deviation from the expectations defined in the rejection of the null hypotheses in the researches (Cohen, 1988). Cohen's d is a formula that is commonly used to find the difference between the mean scores of two groups (Cohen, 1988; Özsoy & Özsoy, 2013; Yıldırım & Yıldırım, 2011). The criteria for the evaluation of the effect size values classified by Cohen (1988) were suggested as .20 for low effect, .50 for medium effect and .80 for high effect.

3. Findings

3.1. Comparison of Motivation Pre- and Post-test Scores

Table 4 presents the motivation pre-test and post-test scores of the experimental and control groups.

Table 4
Wilcoxon Signed Ranks Test Results of Motivation Pre-test and Post-test Scores

Test	*Groups*	*Pre-Posttest*	*N*	*MR*	*SR*	$Mean_{pre}$	$Mean_{post}$	z	p	r
Motivation	E_{pre}-E_{post}	Negative ranks	5	6.30	31.50					
		Positive ranks	6	5.75	34.50	76.28	75.92	−.134	.89	-
		Equal	3							
	C_{pre}-C_{post}	Negative ranks	5	5.20	26.00					
		Positive ranks	6	6.67	40.00	76.25	78.00	−.624	.53	-
		Equal	3							

Note. E_P-E_p: Experimental Pre-Post; C_P- C_P: Control Pre-Post; MR: Mean rank; SR: Sum of ranks.

Table 4 indicates no significant difference between the instrument motivation pretest-posttest scores of the students in the experimental ($z = -.134$; $p > .05$) and control ($z = -.624$; $p > .05$) groups. Table 5 presents the comparison of the motivation post-test scores of the experimental and control groups.

Table 5
Mann-Whitney U Test Results of Motivation Post-Test Scores

	Group	*N*	*MR*	*SR*	*Mean*	*U*	*z*	*p*
Motivation (Post-test)	Experimental	14	12.57	176.00	75.92	71.000	-.670	.50
	Control	12	14.58	175.00	78.00			

Note. MR: Mean rank; SR: Sum of ranks.

According to Table 5, no statistically significant difference was observed between the instrument motivation post-test scores of the experimental and control groups (U=71.000; p>.05).

3.2. Comparison of Attitude Pre- and Post-test Scores

Table 6 presents the attitude pre-test and post-test scores of the experimental and control groups.

Table 6
Wilcoxon Signed Ranks Test Results of Attitude Pre-Test and Post-Test Scores

Test	*Score*	*Pretest-Posttest*	*N*	*MR*	*SR*	$Mean_{pre}$	$Mean_{post}$	z	p	r
Attitude	E_{pre}-E_{post}	Negative ranks	2	4.50	9.00	81.21	85.28	-2.35^a	.01*	−.63
		Positive ranks	10	6.90	69.00					
		Equal	2							
	C_{pre}-C_{post}	Negative ranks	10	6.80	68.00	87.50	80.08	-2.27^b	.02*	.65
		Positive ranks	2	5.00	10.00					
		Equal	0							

Note. [a]Based on Negative Ranks; [b]Based on Positive Ranks; *$p < .05$

Table 6 indicates that the pre-test arithmetic mean scores of the experimental group is 81.21, and the arithmetic mean of the posttest scores is 85.28. According to this finding, the post-test scores of the students in the experimental group were higher than the pre-test scores. According to the

result of the Wilcoxon Signed Ranks Test, a significant difference was found between the pretest-posttest scores of the experimental group students ($z = -2.35$; $p < .05$). It was determined that the pre-test arithmetic mean scores of the control group was 87.50, and the arithmetic mean of the posttest scores was 80.08. According to this finding, the pre-test scores of the students in the control group were higher than the post-test scores. According to the results of the Wilcoxon Signed Ranks Test, a significant difference was found between the pretest-posttest scores of the control group students ($z = -2.27$; $p < .05$). Table 7 presents the comparison of the attitude post-test scores of the experimental and control groups.

Table 7
Mann-Whitney U Test Results of Attitude Post-Test Scores

	Group	*N*	*MR*	*SR*	*Mean*	*U*	*z*	*p*	*r*
Attitude (Post-test)	Experimental	14	16.61	232.50	85.28	40.50	−2.24	.02*	−.44
	Control	12	9.88	118.50	80.08				

Note. $*p < .05$

Table 7 shows that a statistically significant difference was found between the posttest scores of the experimental and control group students ($U = 40.50$; $p < .02$) according to the results of the Mann-Whitney U Test. This difference was in favor of the experimental group post-test. After testing the effect size for the z value, it was concluded that this difference was moderate [$r = -.44$; $p < .05$].

3.3. Comparison of Accompaniment Skills Pre- and Post-test Scores

Table 8 presents the accompaniment skills pre-test and post-test scores of the experimental and control groups.

Table 8
Wilcoxon Signed Ranks Test Results of the Accompaniment Skills Pre-Test and Post-Test Scores

Test	*Score*	*Pretest-Posttest*	*N*	*MR*	*SR*	$Mean_{pre}$	$Mean_{post}$	*z*	*p*	*r*
Accom-paniment	E_{pre}-E_{post}	Negative ranks	0	.00	.00	17.80	48.20	−3.30	.00	.88
		Positive ranks	14	7.50	105.00					
		Equal	0							
	C_{pre}-C_{post}	Negative ranks	0	.00	.00	18.28	32.29	−3.06	.00	.88
		Positive ranks	12	6.50	78.00					
		Equal	0							

According to Table 8, it was determined that the pre-test arithmetic mean score of the accompaniment skills of the students in the experimental group was 17.80, and the post-test arithmetic mean score was 48.20. According to this finding, it was concluded that the post-test scores of the students in the experimental group were higher than the pre-test scores. According to the result of the Wilcoxon Signed Rank Test, a significant difference was found between the pretest-posttest scores of the experimental group students ($z = -3.297$; $p < .05$). It was observed that the pretest arithmetic mean score of accompaniment skills of the students in the control group was 18.28, and the arithmetic mean of the posttest scores was 32.29. According to this finding, the pre-test scores of the students in the control group are higher than the post-test scores. According to the results of the Wilcoxon Signed Ranks Test, a significant difference was found between the pretest-posttest scores of the control group students ($z = -3.061$; $p < .05$). It was determined that the effect size value in the experimental and control groups was equal [$r = .88$; $p < .05$] and at a high level. It was also seen that the pre-test scores of the experimental and control groups were equal, while the post-test scores were not. Table 9 presents the comparison of the accompaniment skills post-test scores of the experimental and control groups.

Table 9
Mann-Whitney U Test Results of Accompaniment Skills Post-Test Scores

	Group	*N*	*MR*	*SR*	*Mean*	U	z	p	r
Accompaniment (Post-test)	Experimental	14	18.32	256.50	48.20	16.50	−3.47	.00	−.68
	Control	12	7.88	94.50	32.29				

Table 9 shows that the arithmetic mean post-test scores of the accompanying skills was 48.20 for the experimental group, while it was 32.29 for the control group. According to this finding, there was a difference between the arithmetic mean of the post-test scores of the experimental and control group students. According to the results of the Mann-Whitney U Test, a significant difference was found between the post-test scores of the experimental and control group students ($U = 16.50$; $p < .01$). It was determined that the effect size value [$r = -.68$; $p < .05$] for the z-value of the accompaniment skill was at a high level. A high level of difference was found between the post-test scores of the experimental and the control group students.

4. Discussion and Conclusion

In the study, no significant differences were found between the pre- and post-test instrument motivation scores of the experimental and control groups. Research findings were compared with studies that showed or did not show parallels. Chiu (2016) reported that the motivation levels of the flipped learning and traditional learning groups were similar to each other. Çukurbaşı (2016) formed two experimental groups and a control group for teaching algorithms and flow diagrams in which flipped learning and problem-based learning were applied. As a result of the research, there was no significant difference between the experimental groups in terms of motivation scores. The results obtained in this study are generally consistent with the relevant literature. Students were unable to adopt the flipped learning model because they were starting a new instrument. This can explain why there was no motivational effect when the model was applied. They claimed that students should get used to the application of the flipped learning model (Turan, 2015) and that students were prejudiced against this model at first (Alsancak-Sırakaya, 2015). In studies that found opposite results with the study, Yıldız (2017) investigated the effect of flipped learning model in flute education on students' motivation. He found a significant difference between the motivation scores of the experimental and control group students, but there was no significant difference between the instrument motivation scores of the groups. In his study, Karaca (2017) found a significant difference between the motivation scores of the students in favor of the flipped learning model in the experimental group in terms of attention and satisfaction. However, there was no significant difference between the scores in the dimensions of conformity and trust.

Experimental and control group students were tested on their instrument attitude pre-test and post-test. As a result, instrument attitude scores significantly differed between the experimental group and the control group. Post-test scores in the experimental group were higher than those in the control group. After being trained with the flipped learning model, the experimental group students showed positive attitudes toward the instrument. Compared to the control group students trained with the traditional learning model, the instrument attitude pre-test and post-test scores were significantly different. According to the mean scores of the control group students, the pre-test score is higher than the post-test score. Gökdemir (2018) found that there was a significant difference between the post-test scores of the students in the experimental and control groups, which was similar to the previous study. A statistically significant difference was found between the post-test scores of the experimental and control group students. This difference was in favour of the experimental group post-test. In this case, the application of the flipped learning method can be explained as a more effective method in increasing the attitude than the traditional learning method. Mason et al. (2013) stated that students are wary of the flipped learning model at the beginning, their attitudes have changed over time and they have become accustomed to this model. In the study conducted by Öztürk and Alper (2018) on the effect of the flipped learning

model on students' achievements, attitudes towards computers and self-learning levels, it was concluded that students' attitudes towards computer lessons were more positive than the control group. In the flipped learning model, it can be thought that the students' attitudes are positive, students are willing to use technology, and their attitudes are positive because they can practice more during and outside the lesson, they can learn quickly and save time. Pierce and Fox (2012) examined the attitudes of students studying in the pharmacy department in their study in which they applied the flipped learning model. It was determined that the attitude of the experimental group was more positive than the students who were educated with traditional education. This result is in parallel with the current research. The fact that the attitudes of the students in the experimental group to which the flipped learning model was applied were significantly different, shows that the students adopted this model, their attitudes towards the instrument got higher and they found it appropriate to apply the flipped learning model for the instrument. Students who were educated using a traditional learning model in the control group showed a decrease in attitudes. It is possible that the teacher-centered approach of traditional learning may have had a negative effect on the attitude in some cases, explaining the decrease.

Study participants who took the flipped learning model and traditional learning model of guitar education and accompaniment were compared on pre-test and post-test scores for accompaniment songs in the course. Both experimental and control group students scored equally on the pre-test. A significant difference was found between the arithmetic mean scores of the experimental and control groups for the accompaniment skill. Post-test scores of experimental and control groups showed a significant difference, according to this result. The flipped learning model resulted in a significant difference in favor of the experimental group. For guitar training and accompaniment lessons, flipped learning is a viable model based on the higher scores in the experimental group. Although the effect size values of the accompaniment songs of experimental and control group students were high in both groups, the effect size value of the experimental group was low. After comparing the post-test scores of the experimental and control groups, the experimental group had higher post-test scores than the control group. In the experimental group using the flipped learning model, the students' learning development was positively impacted. Thus, flipped learning provides a better result than traditional learning according to this result.

As a result of the students coming to lessons beforehand, the experimental group scored higher for accompaniment than the control group. Videos and materials of the songs to be studied with the students were sent before the lesson day, there was constant student-teacher communication, the teacher provided feedback to the student on social media and corrected the necessary things. The literature shows that there are very few studies on instrument accompaniment and performance for flipped learning. Sever (2014) reported in his research on violin education that he sent a video to the students beforehand, that the students came to the lesson ready with the flipped learning model, that the students practiced the instrument more, and that the violin lesson was more efficient thanks to this method. Similar results were observed with this study. On the other hand, there were also studies in which different instruments were studied with the flipped learning model. Topalak (2016) found that there was a positive differentiation between the flipped learning model and the traditional learning model in favour of the experimental group in his research related to piano teaching. According to their study on flipped learning model effectiveness on flute students' performance, Yıldız and Otacıoğlu (2017) found a significant difference between the experimental and control groups as far as performance scores are concerned. In this context, it can be said that students' training with the flipped learning model provides an increase in their success and has an important place in gaining self-confidence (Topalak, 2016). In a similar study, Sever and Sever (2017) stated that flipped learning in piano education provides students with performance awareness. It was observed that these results were similar to the current research. In light of all these, the significant difference between the post-test scores of the students in the experimental and control groups shows that the flipped learning model is a viable model for guitar education and accompaniment lessons.

5. Recommendations

Based on the results of the research, the flipped learning model was beneficial for students in the experimental group when it came to guitar education and accompaniment. Various branch courses should employ this method both in theoretical and applied classes. Higher education institutions can organize workshops to implement this method. Flipped learning can be compared with other learning models (cooperative learning, problem-based learning, peer learning, etc.). Rather than wasting time in the classroom, this model focuses on practice. Flipped learning may be beneficial in departments with a strong emphasis on practice (fine arts, conservatory, engineering, informatics, sports, etc.).

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