



Saęer, T., Kalaycıoęlu, G. K. & Zahal, O (2022). The Effect of Active Learning Activities on the Performance and Motivation of Viola Students. *International Online Journal of Education and Teaching (IOJET)*, 9(4). 2019-2037.


Received : 18.06.2022
Revised version received : 29.09.2022
Accepted : 30.09.2022

THE EFFECT OF ACTIVE LEARNING ACTIVITIES ON THE PERFORMANCE AND MOTIVATION OF VIOLA STUDENTS

Research article

Turan Saęer  <https://orcid.org/0000-0002-1059-678X>
Yildiz Technical University, Turkey
tsager@yildiz.edu.tr

Corresponding author:

Őükrü Göktuę Kalaycıoęlu  <https://orcid.org/0000-0002-5402-509X>
Tokat GaziosmanpaŐa University, Turkey
goktug.kalaycioglu@gop.edu.tr (Corresponding Author)

Onur Zahal  <https://orcid.org/0000-0003-0702-9159>
Inönü University, Turkey
onur.zahal@inonu.edu.tr

Biodata(s):

Turan Saęer is a professor of music theory at the Department of Music and Performing Arts, Yıldiz Technical University, Turkey. His research focuses music theory, music education, early republican of Turkish Music, percussion instruments and viola education, chamber and orchestral music.

Őükrü Göktuę Kalaycıoęlu is an assistant professor at the Department of Music Education, Tokat GaziosmanpaŐa University, Turkey. His works of interests are, music education, music theory, viola education, chamber and orchestral music, musical aptitude.

Onur Zahal is an associate professor of music education at the İnönü University, Turkey. His research focuses music education, learning styles, musical aptitude, musical preference, guitar and ukulele education.

Copyright © 2014 by International Online Journal of Education and Teaching (IOJET). ISSN: 2148-225X.

Material published and so copyrighted may not be published elsewhere without written permission of IOJET.

THE EFFECT OF ACTIVE LEARNING ACTIVITIES ON THE PERFORMANCE AND MOTIVATION OF VIOLA STUDENTS*

Turan Saęer

tsager@yildiz.edu.tr

Őukrő Gőktuę Kalaycioęlu

goktug.kalaycioglu@gop.edu.tr

Onur Zahal

onur.zahal@inonu.edu.tr

Abstract

In this study, it is aimed to determine the effects of active learning activities on viola students' performance and motivation. One group pretest-posttest experimental design was used in the study. The study group consist of 10 students, 7 of them receiving Viola training within the scope of the Individual Instrument course at GaziosmanpaŐa University Fine Arts Education Department Music Education Department and 3 students within the scope of Turkish and Western Music Instruments course at Tokat Fine Arts and Sports High School. During the eight-week practice, with the students in the study group, active learning-based activities which are prepared for the viola training were carried out with students in the study group. In the study, as a means of data collection, by adapting 'Exam Performance' dimension of 'Violin Lesson Performance Form' to the viola, the 'Motivation Scale' part of 'Motivated Strategies for Learning Questionnaire' were used. According to the results of the study, it was determined that the activities based on active learning increased viola performance success, and influenced the students' motivation for viola lesson positively.

Keywords: Music education, active learning, motivation, viola performance.

1. Introduction

Instrument education is one of the basic components of the music education. The content of instrument education differs according to the types of music education. In general terms, the main purpose of instrument education is to transform psycho-motor behaviors into skills and to ensure the musical development of the individual. According to Ercan and Ertem (1999), musical development occurs in the form of understanding and comprehending music, establishing musical communication, developing musical creativity, acquiring theoretical knowledge and transforming these gains into performance. The focus of instrument training is

* This study is derived from a part of the doctoral dissertation titled "Effects of active learning activities on viola students' performance achievements, motivation levels and their opinions on the course" under the supervision of Prof. Dr. Turan Saęer.

the act of playing. The act of playing, which is a pattern of cognitive, affective and psychomotor behaviors requires the coordinated usage of mind and muscles (Yağışan, 2008). In this sense, some basic qualifications are needed to play an instrument. According to Faye (2001), these qualities that a person playing an instrument should have hearing ability, sense of rhythm, musicality, memory, full sensitivity and harmony in the sense organs, coordination between the hand and finger structure and the two arms, intelligence, attention, and perception.

In addition to the qualifications emphasized above, vocational instrument training, which is the scope of this study, requires high level knowledge, skills, regular study habits and effective learning strategies. In this respect, instrument education is a complex and 'difficult' field of education for students and teachers. Educational psychology literature points out that many individual and environmental variables that are attitudes, anxiety, self-confidence, readiness, curriculum, education policies, educational environments, teaching materials, etc. have an effect on success (Feldman, 1997; Slavin, 2013). In addition to these variables, motivation and learning-teaching approaches are the other two important factors needed most for success in instrument training.

1.1. Motivation

Motivation is a concept used to describe internal and external processes that activate, direct and maintain behavior over time (Slavin, 2013). Different disciplines related to education emphasize that motivation is an important phenomenon for effective teaching (Feldman, 1997; Slavin, 2013). Motivation is handled in different ways in prominent learning theories. According to the behavioral learning theory, motivation is an environmental variable, while according to the cognitive learning theory, it is an internal phenomenon. The social learning approach, on the other hand, handles in motivation with internal and external reinforcements.

By considering the learning process from different perspectives, learning theories emphasize that each individual's proficiency and expectations are different in the learning process and therefore they will be motivated differently. In addition, there are important findings showing that students with high motivation are more successful and these students have characteristics such as using high-level cognitive skills, internalizing and protecting information, being determined, and taking on the challenging aspects of the job, realizing very meaningful learning rather than rote learning etc. (Ormrod, 2013; Slavin, 2013; Duy, 2012). In addition to these views, it is known that the phenomenon of motivation in music and instrument education is related to self-confidence, self-esteem, perception of talent, musical experiences, usage of metacognitive and self-regulation skills, study habits, teacher, family, peers, classroom atmosphere, individual and environmental variables (Austin ve Vispoel, 1992; Asmus, 1994; Hallam, 2002; Zimmerman, 2005; Kwan, 2007; Sichivitsa, 2007; Modiri, 2012; Özmenteş, 2013; Burak, 2014; Girgin, 2015). On the other hand, lack of motivation is one of the main problems encountered in instrument training (Schmidt, 2005).

1.2. Instrument Training and Motivation

According to Çilden (2016), the acquisition of mental and physical skills in instrument education necessitates a systematic, gradual and planned study with a well-organized curriculum. In this sense, a planning taking into account the variables related to the individual difference and motivation of the student affects the success in instrument education. For example, in Schmidt's study (2005), it was found that students learned better and were more motivated in instrument learning-teaching environments designed according to cooperative goal structures rather than competitive or individualized goal structures. On the other hand, in studies conducted according to modern motivation theories in recent years, it is observed that

motivation increases when students' personal expectations about the education they receive during the instrument education process are satisfied and autonomous environments are presented (Evans, McPherson ve Davidson, 2012; McPherson ve Diğ., 2015). Despite these studies, there is also evidence showing that instrument teachers tend to be more controller and use extrinsic motivational resources in music and instrument education process (Legutki, 2010).

On the other hand, instrument teaching lessons have a structure in which the teacher mostly exhibits his skills related to the instrument and conveys his experiences related to the subject while the student imitates the teacher's behaviors and musicality on the instrument within the framework of the master-apprentice relationship (Özmenteş, 2013). In other words, the dominant teaching approach in instrument education lessons is based on traditional teaching methods and techniques (Çilden, 2016). However, literature studies show that preferred teaching methods are effective on success, and therefore, different teaching-learning approaches are needed in music education and instrument education processes that arouse interest and motivate students (Kaplan ve Stauffer, 1994; Cangro, 2004; Uysal; 2004; Parker, 2007; Sichivitsa, 2007). In this sense, active learning, which stands out in current education practices, is an approach that has the potential to have an impact on achievement and motivation in instrument education.

1.3. Active Learning

Prince (2004) defined active learning as a teaching method that involves students in the learning process and requires students to do meaningful learning activities and think about what they are doing. While this definition may include traditional activities such as homework, in practice active learning refers to activities performed in the classroom. The essential elements of active learning are student activity and participation in the learning process. Active learning is often viewed as the opposite of the traditional approach where students passively learn from the instructor (Bonwell & Eison, 1991). According to Bonwell and Eison (1991: 2), although the term active learning has never been defined precisely in the educational literature, strategies that promote active learning in the classroom have some characteristic features:

- Students are more involved in lessons than passive listening.
- Less emphasis is placed on transferring knowledge; it is more important on improving students' skills.
- Students are involved in high level thinking (analysis, synthesis, evaluation).
- Students are in a position to engage in activities such as reading, discussion, and writing.
- More emphasis is placed on students' discovering their own attitudes and values.

The relevant literature points out that music and instrument lessons based on active learning and approaches related to active learning have positive effects on attitude, self-confidence, perception of self-efficacy, musical content knowledge, learning strategies, sight-reading, instrument performance, class participation, interest in the lesson and classroom behavior (Hwong, Caswell, Johnson ve Johnson, 1993; Bilen, 1995; Goliger, 1995; Kocabaş, 1995; Çizmeçi, 2006; Fisher, 2006; Yaltur, 2006; Canakay, 2007; H. Yokuş, 2009; T. Yokuş, 2009; Saygı, 2009; Sözen, 2012; Gürpınar, 2014; Ergin, 2015). In addition, it is seen that the relationship between instrument training and motivation is frequently discussed in the national and international literature (Austin ve Vispoel, 1992; Sandene, 1997; Gumm ve Essmann-Paulsen, 2001; Dick, 2006; Sungurtekin, 2010; Özmenteş, 2012; Turan Engin, 2012;

Özmenteş, 2013; Özçelik Herdem; 2016; Kılınç, 2017; Yıldız, 2017). However, it would be appropriate to emphasize that motivation and achievement variables in instrument training are not considered within the framework of active learning.

Based on these views, the problem of the research is whether the activities based on active learning in viola education make the viola education process more successful and how it affects the performance and motivation of viola students. Within the framework of this purpose, answers to the following questions were sought:

- Did activities based on active learning make a difference in the performance achievement of viola students for the lesson?
- Did activities based on active learning make a difference in the motivation levels of viola students for the lesson?

2. Method

2.1. Research Design

One group pretest-posttest design was used in the research. In this design, the effects of the experimental procedure applied on one group are explained by the difference between the pretest and posttest results of the same measurement tools (Büyüköztürk et al., 2011).

2.2. Participants

The study group (N=10) consists of viola students in Gaziosmanpaşa University, Department of Music Education and Tokat Fine Arts and Sports High School in the spring semester of 2014-2015 academic year. The determination of the participants was based on volunteerism. A total of 4 students, 2 at the university level and 2 at the high school level, who stated that they did not want to participate in the research were not included in the research.

Table 1. *Descriptive Characteristics of the Participants*

Participants	School	Age	Grade	Experience of Playing Viola	Factor in the choice of instrument
P1	University*	21	2	2	Career guidance
P2	University	19	2	6	Career guidance
P3	High School**	18	12	4	Career guidance
P4	High School	15	10	2	Self-choice
P5	University	21	2	6	Career guidance
P6	High School	16	10	2	Career guidance
P7	University	18	1	2	Career guidance
P8	University	22	4	8	Career guidance
P9	University	25	4	6	Career guidance
P10	University	20	1	5	Career guidance

*Department of Music Education, **Fine Arts and Sports High School, ***Year

2.3. Procedure

The experimental procedure was carried out for 14 weeks. Student levels were determined for 2 weeks, students worked on pieces and etudes for 4 weeks, and the teaching program was implemented for 8 weeks. Firstly, a preparatory lesson was held with the students, their instrument performances were observed in 2 weeks and their levels were determined. Students were divided into 3 groups according to their achievement in the instrument, and pieces and etudes selected for the evaluation were distributed to each group within the scope of a single repertoire. Experts were consulted in the selection of pieces[†] and etudes according to the levels. After the distribution of the pieces and etudes, the students were given a 4-week study period. In this process, it was tried to produce solutions for the problems that the students experienced in the traditional course structure. In addition, the Motivation Scales (MS) of the Motivated Strategies for Learning Questionnaire (MSLQ) was applied to the students to obtain the pre-test data.

At the end of the 4-week study, Students' performances on pieces and etudes were recorded by video camera and teaching was started through activities. During the 8-week teaching process, the pieces and etudes were not studied, and the students were tried to gain technical and musical skills through activities. The students' study on pieces and etudes were checked, and their development in line with the skills expected to be acquired was observed. After the 8-week practice, the performances of the students were recorded again, the MS was applied again, and the process was concluded by re-interviewing the students about their views on the lesson.

Table 2. *Research Process*

	Pretest	Method	Posttest
Participants	<ul style="list-style-type: none"> • MS • Interview • Video recording 	Active learning activities 8-weeks	<ul style="list-style-type: none"> • MS • Interview • Video recording

Table 3 shows the course contents and learning-teaching methods used in the experimental procedure.

[†] 1. Prof. Dr., Yıldız Technical University 2. PhD, Tokat Gaziosmanpaşa University 3. Lecturer, Tokat Gaziosmanpaşa University 4. Lecturer, Tokat Gaziosmanpaşa University

Table 3. Course contents and teaching-learning methods

Week	Course Subject	Method and techniques
1 st	Basic principles of playing the viola	-Self-assessment
	• Holding viola	-Discussion
	• Correct positioning of the viola	-Problem solving
	• Position of the left arm	-Active question and answer (Warm-calling, think-pair-share)
	• Proper bow hold	
2 nd	Correct positioning of the viola bow on the string	
	Performance concept and factors affecting performance	-Brainstorming
	• Definition of performance	-Discussion
	• Physical dimension	-Active question and answer (Warm-calling, think-pair-share)
3 rd	• Cognitive dimension	
	Bow techniques	-Study group
	• Detache	-Discussion
4 th	• Legato	-Active question and answer (Warm-calling, think-pair-share)
	Bow techniques	-Snowball
	• Staccato	--Active question and answer (Warm-calling, think-pair-share)
5 th	• Spiccato	
	Musical dynamics and articulation	-Research group
	• Vocalization of musical dynamics	-Expository teaching
	• Bowing in musical dynamics	-Discussion
	• Articulation terms	
6 th	• Playing in terms of articulation	
	Vibrato techniques	-Demonstration
	• Finger vibrato	-Active question and answer (Warm-calling, think-pair-share)
	• Wrist vibrato	-Discussion
7 th	• Arm vibratos	
	Characteristics of classical music ages	-Teaching by sharing (Teaching team member)
	• Medieval-Renaissance and musical expression	-Discussion
	• Baroque period and musical expression	
	• Classical period and musical expression	
8 th	• Romantic period and musical expression	
	• Contemporary period and musical expression	
	Musical elements	-Cooperative learning (Jigsaw I)
	• Musicality	-Active question and answer (Warm-calling, think-pair-share)
	• Integrity	- Discussion
	• Musical expression	

2.4. Data Collection

In the research, the 'Exam Performance (EP)' dimension of the 'Violin Lesson Performance Form (VLPF)' and the 'Motivation Scale (MS)' were used.

2.4.1. Violin Lesson Performance Form (VLPF)

The VLPF developed by Dalkıran (2006) consists of three major factors as 'Program', 'Exam Performance (EP)' and 'Semester Situation'. These three main dimensions include 11 sub-dimensions. These sub-dimensions are 'compliance with the requirements of the program', 'correct and clean sound production', 'readiness to play the violin', 'right- and left-hand technique', 'metric and rhythmic accuracy', 'articulation', 'integrity', 'tone'. quality', 'speed and loudness', 'vibrato', 'term performance'. In the evaluation of the measurement tool, a five-point Likert scaling approach consisting of '1-very low, 2-below medium, 3-moderate, 4 above average, 5-very good' was adopted. The scale, which consists of 16 items, has a single factor structure. The Cronbach alpha reliability coefficient was determined as .87. In this study, the EP dimension of the scale was used by adapting it to the viola due to the research subject and it will be referred to as the 'Performance Achievement Form' (PAF) in the continuation of the research. Scoring of the measurement tool was made by 4 expert instructors who watched the video recordings of the instrument performances of the students in the study group.

2.4.2. Motivated Strategies for Learning Questionnaire (MSLQ)

It is the Turkish version of the scale developed by Pintrich, Smith, Garcia, and McKeachie (1991) and adapted to Turkish by Büyüköztürk, Akgün, Özkahveci, and Demirel (2004). This questionnaire consists of two main parts, namely the 'Motivation Scale (MS)' consisting of six factors and the 'Learning Strategies Scale' consisting of nine factors. Each of these sub-factors can be used separately according to the purpose of use (Pintrich et al., 1993). In this study, the MS was used.

2.4.3. MS

The scale consists of a total of 6 factors and 31 items: 'intrinsic goal orientation', 'external goal orientation', 'task value', 'control beliefs', 'self-efficacy about learning and performance', and 'test anxiety'. It is a seven-point Likert-type scale ranging from 'Absolutely wrong for me' (1) to 'Absolutely true for me' (7). The reliability study of the Turkish version of the scale was conducted with the data obtained from 852 university students studying in different departments in two universities. The alpha values calculated for the internal consistency of the MS vary between 0.62 and 0.93 for the original form and between 0.52 and 0.86 for the Turkish form. The eighth question of the scale was not used because it did not comply with the structure of the course in which the research was conducted. Thus, the scale was evaluated over 30 items.

2.5. Data Analysis

SPSS 17.0 program was used to analyze the data. In the first stage, the descriptive values of the students' scores from the PAF and MS were determined. These values are mean, standard deviation, maximum-minimum scores. Descriptive values were determined separately for the total and factor scores of the forms. Experimental procedures of the research were carried out on a small group of ten students. Based on this, it was considered appropriate to use non-parametric statistical techniques in the research. Wilcoxon Signed Ranks Test was used for the analysis processes between posttest-pretest scores (Büyüköztürk, 2007). The r values were calculated to determine the effect sizes in cases where there was a significant difference (Cohen, 1992). The formula $r = \frac{z}{\sqrt{2N}}$ was applied in the calculation of this value (Fritz, Morris, & Richler, 2012). Cohen (1992) expressed the criteria in the interpretation of the r value as .1 small effect, .3 medium effect, .5 large effect.

3. Results

3.1. Descriptive Values of PAF and MS

Table 4. *Descriptive Values of PAF*

		Minimum	Maximum	\bar{X}	sd
Pretest	Overall Performance	17.75	40.00	28.23	6.07
	Technical	10.25	22.75	17.13	3.69
	Musical	7.50	17.25	11.10	2.65
Posttest	Overall Performance	37.75	60.50	50.95	7.24
	Technical	22.25	34.00	29.48	3.83
	Musical	15.50	27.25	21.48	3.60

It is seen that the PAF General Achievement posttest scores of the experimental group were higher than the pretest scores. The same is true for the Technical Dimension and the Musical Dimension of PAF. These results indicate an increase in viola performance achievement after the experiment. In Table 5, the descriptive values of the pretest-posttest PAF total and factor scores are presented.

Table 5. *Descriptive Values of MS*

Component		Minimum	Maximum	\bar{X}	ss	
Pretest	<i>Value</i>	Intrinsic goal orientation	8	28	18.90	8.84
		Extrinsic goal orientation	12	22	16.90	3.51
		Task value	14	42	31.70	8.22
	<i>Expectancy</i>	Control beliefs	18	45	32.10	8.17
		Self-efficacy for learning and performance	17	25	21.40	2.95
		<i>Affective</i>	Test anxiety	8	25	18.70
Posttest	<i>Value</i>	Intrinsic goal orientation	22	28	26.70	1.77
		Extrinsic goal orientation	16	24	20.70	2.58
		Task value	33	42	39.40	2.63
	<i>Expectancy</i>	Control beliefs	45	55	49.00	3.40
		Self-efficacy for learning and performance	25	28	27.10	1.10
		<i>Affective</i>	Test anxiety	8	26	17.50

As seen in Table 5, the mean of the pretest scores of all the factors of the MS, except for the Test Anxiety factor of the experimental group, is lower than the mean of the posttest scores. In the test anxiety factor, the mean of the pretest scores is higher than the mean of the posttest scores. All these results show that the motivation levels of the experimental group after the experiment process were higher than before the experiment process.

3.2. Results on PAF

Table 6. *PAF Pretest-posttest scores (Wilcoxon)*

	Pretest-posttest	N	MR	SR	z	p	r
Overall Performance	Negative R.	0	.00	.00	-2.80	.00**	.63
	Positive R.	10	5.50	55.00			
	Ties	0					
Technical	Negative R.	0	.00	4.00	-2.81	.00**	.63
	Positive R.	10	5.50	55.00			
	Ties	0					
Musical	Negative R.	0	.00	1.50	-2.80	.00**	.63
	Positive R.	10	5.50	55.50			
	Ties	0					

** $p < .01$

According to Table 6, viola teaching based on active learning activities significantly increased viola performance success [$z = -2.80, p < .01$]. It was determined that the effect size value was high [$r = .63 > .50$]. Similarly, in the Technical Dimension and the Musical Dimension, a significant positive differentiation and a high level of effect size were detected.

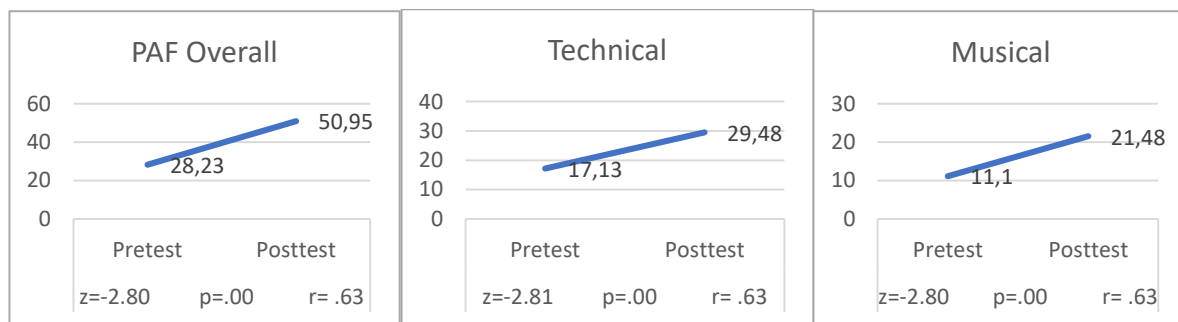


Figure 1. Wilcoxon test Results of PAF

3.3. Results on MS

Table 7. MS Pretest-posttest scores (Wilcoxon)

Component	Pretest-posttest	N	MR	SR	z	p	r	
Value	Intrinsic goal orientation	Negative R.	0	.00	.00	-2.67	.008**	.60
	Positive R.	9	5.00	45.00				
	Ties	1						
Value	Extrinsic goal orientation	Negative R.	2	2.00	4.00	-2.20	.03*	.49
	Positive R.	7	5.86	41.00				
	Ties	1						
Value	Task value	Negative R.	1	1.50	1.50	-2.65	.008**	.59
	Positive R.	9	5.84	53.50				
	Ties	0						
Expectancy	Self-efficacy for learning and performance	Negative R.	0	.00	.00	-2.81	.005**	.63
	Positive R.	10	5.50	55.00				
	Ties	0						
Expectancy	Control beliefs	Negative R.	0	.00	.00	-2.82	.005**	.63
	Positive R.	10	5.50	55.00				
	Ties	0						
Affective	Test anxiety	Negative R.	4	5.63	22.50	-.63	.53	-
	Positive R.	4	3.38	13.50				
	Ties	2						

* $p < .05$, ** $p < .01$

According to the analysis results in Table 7, it was determined that there was a positive significant difference in five of the six factor scores of MS. This situation can be interpreted as an increase in students' motivation levels for viola lesson after viola teaching practices based



on active learning activities. Significant differences were found in all factor scores except Test Anxiety [$p > .05$]. It was concluded that the effect size values of the Intrinsic goal orientation, Task Value, Self-efficacy for learning and performance, Control Belief factors were high [$r > .50$], while the effect size value of the External Goal Setting factor was medium [$r > .30$].

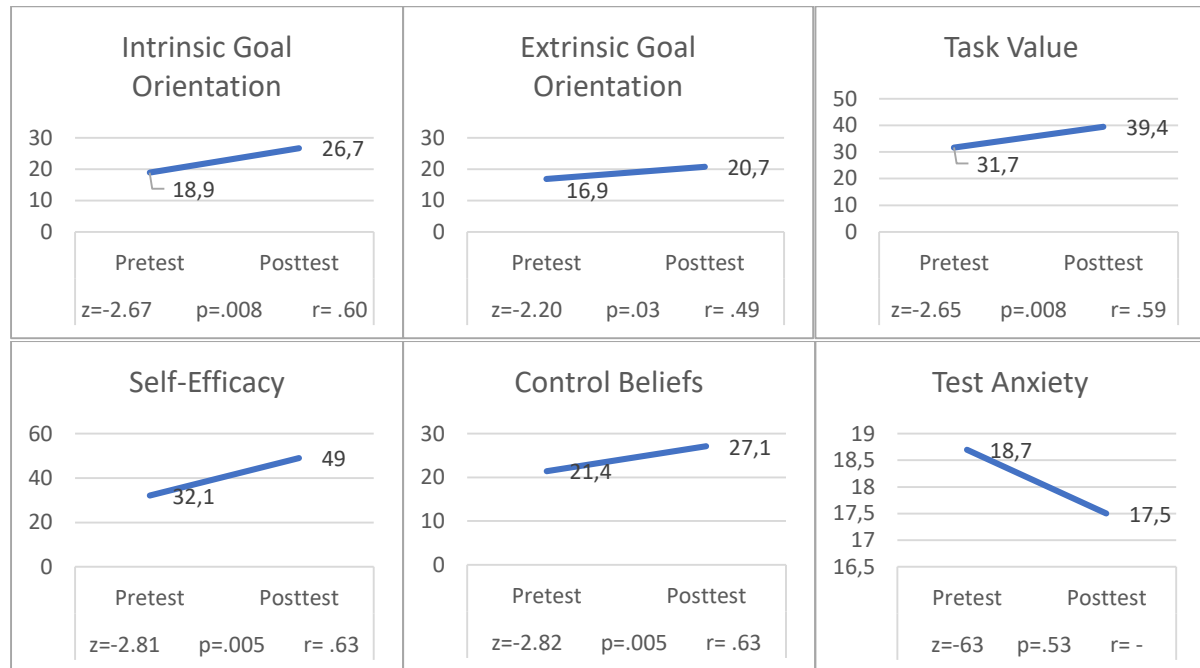


Figure 2. Wilcoxon test Results of MS

4. Discussion

In the research, it was concluded that the teaching activities carried out according to the active learning approach were effective on viola performance success. It is possible to support this result with studies in the literature. In the study conducted by Kocabaş (1995), which is one of the first researches on the subject in our country, it was found that cooperative learning has a positive effect on musical attitude, knowledge of the music, strategies for learning music and playing instruments together compared to traditional learning methods. T. Yokuş (2009) pointed out that activities aimed at developing metacognitive skills are much more effective than classical education in increasing students' metacognitive awareness, guitar performance achievement and guitar lesson knowledge. On the other hand, H. Yokus (2009) similarly determined that programmed (systematic) educational activities, which center students' self-regulation of the learning process and usage of learning strategies effectively, are much more effective than classical education in increasing the achievement of piano performance and metacognitive awareness. In the study conducted by Ergin (2015) on a similar subject, it was found that instrument teaching according to metacognitive self-regulation steps increased sight-reading performance, and in Bilen's (2007) study, students who were successful in piano performance used self-regulation strategies effectively. Goliger (1995) and Fisher (2006) revealed that cooperative learning is effective on piano performance success, attitude, class participation and classroom behavior. It is possible to enrich these results with the results of active learning-achievement-themed research conducted in other dimensions of music education (Çizmeçi, 2006; Yaltur, 2006; Saygı, 2009; Dubaz, 2011; Gürpınar, 2014) and in different branches (Tandoğan, 2006; Alşan, 2009; Kılınç, 2015; Kandemir, 2017; Korde, 2017).

Instrument teaching courses are generally based on the master-apprentice relationship. Özmenteş (2013) summarizes this relationship as a process in which the teacher demonstrates his skills on the instrument and conveys his experiences on the subject, while the student imitates the teacher's behavior and musicality on the instrument. It can be said that traditional teaching such as narration, question-answer and demonstration is preferred in lessons of this nature, and accordingly, the teacher plays an active role and the student a passive role. In this respect, the traditional instrument teaching process differs from active learning. In active learning, many activities in which the student is active are used, such as self-assessment (Mistar, 2011; Silbermann, 1996; Kösteroğlu ve Çelen, 2016), brainstorming (Aykaç, 2009), task group (Açıköz, 2014), snowball (Aykaç, 2009), research group, demonstration, Shared Teaching (Teaching a Team Member) and Jigsaw (Mbacho ve Githua, 2013). It can be said that similar results in this and other studies stemmed from these activities that are based on students and show diversity.

In the study, it was concluded that activities based on active learning were effective on motivation for viola lesson. In the literature review, no research was found that examines the relationship between active learning and motivation in the context of instrument education. On the other hand, it is seen that the studies dealing with the variables of instrument training and motivation are also limited. In addition to this, there are also studies that deal with active learning activities and motivation variable in different fields of music education. It is possible to support the present result with the results of this limited number of studies. For example, in the study conducted by Bilen (1995), it was determined that cooperative learning, which is one of the active learning methods, is more effective in the development of musical motivation than teaching with notes and teaching by ear. Similarly, Canakay (2007) concluded that music teaching activities structured according to active learning methods are more effective on achievement attributions that are prominent in motivation-oriented studies. At this point, it would be appropriate to discuss the theoretical background on instrument training and motivation. According to Slavin (2013), students who are motivated to learn use higher cognitive processes in learning and internalize knowledge more. This is also true in instrument training. Motivation, which we can briefly describe as "the driving force", is a factor that arouses interest for the goals that the student will reach in instrument education, which requires regular, continuous and disciplined work, that drives him to work and affects achievement. It is possible to see the positive relationship between achievement and motivation in studies conducted in instrument education and other disciplines (Çalışkan 2008; Budak, 2016).

As Hallam (2002) argues, motivation in the context of music education depends on the complex interaction between the individual characteristics of the student and various environmental factors. Students are more motivated when they perceive their teachers as supportive and collaborative, when materials are well explained, clear directions and information about learning content are given, and positive/constructive feedback is given (Slavin, 2007). In addition to what and how to teach, an effective teacher should know students' perception mechanisms and learning strategies well, analyze students' individual differences, thinking styles, perception capacities and learning ways in the best way, and offer effective learning environments (Fayez, 2001; Sichivitsa, 2007). In this sense, different practices are needed to increase motivation in education and training processes. Preparing an effective teaching plan, making learning experiences suitable and meaningful for students' needs, presenting the subject in an interesting way, taking into account the differences in pre-learning and student's characteristics, creating a positive atmosphere in the classroom, asking interesting questions, associating the learning content with different subjects, and the tasks assigned to the students, and facilitating the teacher's expectations from the student are some of these practices



(Dilekmen & Ada, 2005). As seen in this research, it is thought that these practices and activities are the main reason why active learning positively affects the motivation of viola students.

5. Conclusion and Suggestions

In this study, in which the effect of an alternative learning-teaching approach was tested, it was seen that viola teaching carried out according to the active learning approach was effective on achievement and motivation. It is possible to attribute this result to the active learning activities that make up the experimental package. As it will be remembered, brainstorming, snowballing, research, task group, demonstration, shared teaching, peer teaching, in-group discussion, teaching presentations and cooperative learning methods were used in the presentation of the learning content prepared for the research. In the selection of activities, the teacher should be a guide for students' structuring of learning content; and for supporting teacher-student and student-student cooperation. This course structure directs students with different learning styles to supportive research, raises awareness about self-teaching and self-observation, makes self-assessment and peer-assessment realize incomplete and faulty learning, develops the skills of determining correct and effective study strategies, and improves the habit of extracurricular work. Considered to be beneficial. It is thought that these positive acquisitions are reflected in viola performance achievement and affective learning. In the light of these results, the following suggestions were made:

Today, it is known that the constructivist approach is adopted in all levels and fields of education and the curricula are prepared in this direction. In this context, it is thought that the content of the instrument training courses in all institutions where music education is given should be revised to include methods and techniques such as active learning, self-regulation, and metacognitive strategies in accordance with the constructivist approach.

In this study, a limited part of active learning activities was used. In terms of predicting the effect of active learning on instrument achievement and many other variables related to the instrument, it is considered important to conduct studies involving the use of different active learning activities in the context of individual instrument training.

It is known that due to the nature of instrument training, it is more appropriate to do it individually. On the other hand, it has been revealed in these and similar studies that collective activities have effects such as improving social learning skills, positively affecting achievement and motivation through competition, and increasing attitude and self-efficacy perception by reducing anxiety. In this context, it is thought that it would be appropriate to carry out collective instrument training activities as a support in addition to individual instrument training in music education institutions.

6. Ethical Text

In this article, the journal writing rules, publication principles, research and publication ethics, and journal ethical rules were followed. There is no conflict of interest between the authors. The contribution rate of the first author to the article is 50%, and the contribution rate of the second author to the article is 50%.

References

- Açıkgöz, K. Ü. (2014). *Aktif öğrenme*. BilişYayınları.
- Alşan, E. U. (2009). *Kimya öğretmen adaylarının akademik başarılarına öğrenme stili tercihleri, özkontrollü öğrenme ve motivasyon faktörlerinin etkisi* [Unpublished doctoral dissertation]. Hacettepe University.
- Asmus, E. P. (1994). Motivation in music teaching and learning. *The Quarterly*, 5(4), 5-32.
- Austin, J. R., & Vispoel, W. P. (1992). Motivation after failure in school music performance classes: The facilitative effects of strategy attributions. *Bulletin of the Council for Research in Music Education*, 111, 1-23.
- Aykaç, N. (2009). *Öğretme ve öğrenme sürecinde aktif öğretim yöntemleri* (2nd ed.). Naturel Yayınları.
- Bilen, O. O. (2007). *Öz-düzenleyerek piyano çalısmanın sınav performansına etkisi* [Unpublished doctoral dissertation]. Abant İzzet Baysal University.
- Bilen, S. (1995). *İşbirlikli öğrenmenin müzik öğretimi ve güdüsel süreçler üzerindeki etkileri* [Unpublished doctoral dissertation]. Dokuz Eylül University.
- Bonwell, C. C., & Eison, J. A. (1991). *Active learning: Creating excitement in the classroom*. 1991 ASHE-ERIC higher education reports. ERIC Clearinghouse on Higher Education, The George Washington University, One Dupont Circle, Suite 630, Washington, DC 20036-1183.
- Budak, H. (2016). *İlkokul dördüncü sınıf öğrencilerinin özdüzenleme, motivasyon, bilişüstü becerileri ve matematik dersi başarılarının belirlenmesi* [Unpublished master's thesis]. Çanakkale Onsekiz Mart University.
- Burak, S. (2014). Motivation for instrument education: A study from the perspective of expectancy-value and flow theories. *Eurasian Journal of Educational Research*, 55, 123-136. <http://dx.doi.org/10.14689/ejer.2014.55.8>
- Büyüköztürk, Ş. (2007). *Sosyalbilimleriçinverianalizi el kitabı*(7.th ed.). PegemA Yayıncılık.
- Büyüköztürk, Ş., Akgün, Ö. E., Özkahveci, Ö., & Demirel, F. (2004). The validity and reliability study of the Turkish version of the motivated strategies for learning questionnaire. *Kuram ve Uygulamada Eğitim Bilimleri*. 4(2), 231-239.
- Büyüköztürk, Ş., Çakmak, E. K., Akgün, Ö. E., Karadeniz, Ş., & Demirel, F. (2011). *Bilimsel araştırma yöntemleri*. PegemAkademi.
- Canakay, E. U. (2007). *Aktif öğrenmenin müzik teorisi dersine ilişkin akademik başarı, tutum, öz yeterlik algısı ve yüklemeler üzerindeki etkileri* [Unpublished doctoral dissertation]. Dokuz Eylül University.

- Cangro, R. M. (2004). *The effects of cooperative learning strategies on the music achievement of beginning instrumentalists* [Unpublished doctoral dissertation]. University of Hartford.
- Cohen, J. (1992). Statistical power analysis. *Current Directions in Psychological Science*, 1(3), 98-101. <https://doi.org/10.1111/1467-8721.ep10768783>
- Çalışkan, T. (2008). *Müzik öğretmeni adaylarının bireysel çalgı eğitiminde güdülenme düzeyleri ve başarı durumları arasındaki ilişki* [Unpublished master's thesis]. Marmara University.
- Çilden, Ş. (2016). Çalgı eğitiminde usta-çırak yöntemi. *Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi*, 16 (İpekyolu), 2208-2220.
- Çizmeçi, N. (2006). *Müzik eğitiminde aktif öğrenme tekniklerine dayalı ders programlarının ilköğretim 6. sınıf öğrencilerinin müzik öğretimi, derse dayalı görüşleri ve tutumları üzerindeki etkileri* [Unpublished master's thesis]. Dokuz Eylül University.
- Dalkıran, E. (2006). *Keman eğitiminde performansın ölçülmesi* [Unpublished doctoral dissertation]. Gazi University.
- Dick, H. J. (2006). *The relationship between instrumental music achievement and causal attributions for success and failure* (Publication No. 3235396) [Doctoral dissertation, University of Minnesota]. ProQuest Dissertations & Theses Global.
- Dilekmen, M., & Ada, Ş. (2005). Öğrenmede güdülenme. *Kazım Karabekir Eğitim Fakültesi Dergisi*, 11, 113-123.
- Dubaz, İ. (2011). *İlköğretim okulu müzik derslerinde aktif öğrenme modelinin öğrencilerin çoklu zeka alanları üzerine etkisi* [Unpublished master's thesis]. Marmara University.
- Duy, B. (2012). Güdülenme ve bireysel farklılıklar. In Alim Kaya (Eds.), *Eğitim psikolojisi* (pp. 505-550). PegemAkademi.
- Ercan, N., & Ertem, Ş. (1999). Bireysel piyano eğitiminde müzikalitenin yeri ve önemi. *Gazi Eğitim Fakültesi Dergisi*, 19 (3), 61-65.
- Ergin, E. (2015). *Bilişüstü özdüzenleme basamaklarına göre yapılan gitar eğitiminin deşifre performansına farkındalığa ve tutuma etkisi* [Unpublished doctoral dissertation]. Abant İzzet Baysal University.
- Evans, P., McPherson, G. E., & Davidson, J. W. (2012). The role of psychological needs in ceasing music and music learning activities, *Psychology of Music*, 41 (5), 600-619. <https://doi.org/10.1177/0305735612441736>
- Fayez, S. (2001). *Kuramdan uygulamaya başlangıç keman eğitimi teknik-ilke-yöntemler*. Yurtrenkleri Yayınevi.
- Feldman, R. S. (1997). *Essentials of understanding psychology*. McGraw-Hill.

- Fisher, C. C. (2006). *Applications of selected cooperative learning techniques to group piano instruction* (Publication No. 3212008) [Doctoral dissertation, University of Oklahoma]. ProQuest Dissertations & Theses Global.
- Fritz, C. O., Morris, P. E., & Richler, J. J. (2012). Effect size estimates: current use, calculations, and interpretation. *Journal of Experimental Psychology: General*, *141*(1), 2-18. <https://doi.org/10.1037/a0024338>
- Girgin, D. (2015). Bireysel çalgı dersi motivasyon ölçeği: Geçerlik güvenilirlik analizi. *Kastamonu Eğitim Dergisi*, *23*(4), 1723-1736.
- Goliger, J. M. (1995). *Implementation of a program of cooperative learning in an urban secondary piano laboratory* (Publication No. 9539810) [Doctoral dissertation, Columbia University]. ProQuest Dissertations & Theses Global.
- Gumm, A. J., & Essmann-Paulsen, C. I. (2001). *The effect of instrumental student motivation for music on perceptions of music teaching style*. Paper presented at the Southeastern Music Education Symposium, May 18, Athens, Georgia (p.1-26).
- Gürpınar, E. (2014). *İşbirlikli Öğrenme yöntemine dayalı çoksesli solfej uygulamalarının müziksel işitme-okuma-yazma ve koro ders başarılarına etkisi* [Unpublished doctoral dissertation]. İnönü University.
- Hallam, S. (2002). Musical motivation: Towards a model synthesising the research. *Music Education Research*, *4* (2), 225-244. <https://doi.org/10.1080/1461380022000011939>
- Hwong, N. C., Caswell A., Johnson D. W., & Johnson, R. T. (1993). Effects of cooperative and individualistic learning on prospective elementary teachers' music achievement and attitudes. *The Journal of Social Psychology*, *133*(1), 53-64. <https://doi.org/10.1080/00224545.1993.9712118>
- Kandemir, M. A. (2017). *İlkokul dördüncü sınıf fen bilimleri dersinde aktif öğrenme yaklaşımı doğrultusunda jigsaw II tekniğini kullanmanın akademik başarı ve kalıcılık üzerine etkisi* [Unpublished master's thesis]. Ondokuz Mayıs University.
- Kaplan, P. R., & Stauffer, S. L. (1994). *Cooperative learning in music*. VA: MENC.
- Kılınç, K. (2015). *Aktif öğrenme tekniklerinin dördüncü sınıf öğrencilerinin dinlediğini anlama becerisine ve dinlemeye yönelik tutumlarına etkisi* [Unpublished master's thesis]. Adnan Menderes University.
- Kılınç, S. (2017). *Güzel sanatlar fakültesi müzik bölümü öğrencilerinin çalgı çalışma motivasyonlarını etkileyen unsurlar* [Unpublished master's thesis]. Erciyes University.
- Kocabaş, A. (1995). *İşbirlikli öğrenmenin blokflüt öğretimi ve öğrenme stratejileri üzerindeki etkileri* [Unpublished doctoral dissertation]. Dokuz Eylül University.

- Korde, N. Y. (2017). *16-17 Yaş grubunda 20. Yüzyıl sanat akımlarının aktif öğrenme yöntemleriyle öğretimi: Bir eylem araştırması* [Unpublished master's thesis]. Marmara University.
- Kösterelioğlu, İ. & Çelen, Ü. (2016). Özdeğerlendirme yönteminin etkililiğinin değerlendirilmesi. *İlköğretim Online*, 15(2), 671-681. <https://doi.org/10.17051/io.2016.44304>
- Kwan, E. (2007). *Secondary choral music education in hongkong: Relations among motivation to music, meaning of the choral experience, and selected demographic variables* (Publication No. 3307724) [Doctoral dissertation, Indiana University]. ProQuest Dissertations & Theses Global.
- Legutki, A. R. (2010). *Self-determined music participation: The role of psychological needs satisfaction, intrinsic motivation, and self-regulation in the high school band experience* (Publication No. 3452091). [Doctoral dissertation, University of Illinois]. ProQuest Dissertations & Theses Global.
- Mbacho W. N., & Githua, B. N. (2013) Effects of jigsaw cooperative learning strategy on students' achievement in secondary school mathematics in laikipia east district, kenya. *Asian Journal of Management Sciences and Education*, 2(3), 177-188.
- McPherson, G. E. et al. (2015). Motivation to study music in Australian schools: The impact of music learning, gender, and socio-economic status. *Research Studies in Music Education*, 37(2), 141-160. <https://doi.org/10.1177/1321103X15600914>
- Mistar, J. (2011). A study of the validity and reliability of self-assessment. *TEFLIN Journal*, 22(1), 45-58. <http://dx.doi.org/10.15639/teflinjournal.v22i1/45-58>
- Modiri, I. G. (2012). Müzik öğretmenliği öğrencilerinin piyano dersi motivasyonları ile kişilik özellikleri arasındaki ilişki. *Van Yüzüncü Yıl Üniversitesi Eğitim Fakültesi Dergisi*, 9(1), 74-98.
- Ormrod, J. E. (2013). *Öğrenme psikolojisi* (M. Baloğlu, Trans.). Nobel. (Original work published 1984)
- Özçelik Herdem, D. (2016). Öğretim elemanı görüşlerine göre keman eğitiminde öğrencilerin motivasyonlarını artırmaya yönelik yaklaşımların değerlendirilmesi. *Journal of Strategic Research in Social Science*, 2(4), 67-82.
- Özmenteş, S. (2012). Çalgı eğitiminde güdü ve performans ilişkisi. *Çağdaş Eğitim Dergisi*, 1(2), 47-56.
- Özmenteş, S. (2013). Çalgı eğitiminde öğrenci motivasyonu ve performans. *Eğitim ve Öğretim Araştırmaları Dergisi*, 2(2), 320-331.
- Parker, N. R. (2007). *A team -based learning model to improve sight -singing in the choral music classroom* (Publication No. 3256882) [Doctoral dissertation, University of Minnesota]. ProQuest Dissertations & Theses Global.

- Pintrich, P. R., Smith, D. A. F., Garcia, T., & McKeachie, W. J. (1991). A Manual for the use of the motivated strategies for learning. Michigan: School of Education Building, The University of Michigan. (ERIC Document Reproduction Service No. ED338122).
- Prince, M. (2004). Does active learning work? A review of the research. *Journal of Engineering Education*, 93(3), 223–231. <https://doi.org/10.1002/j.2168-9830.2004.tb00809.x>
- Sandene, B. A. (1997). *An investigation of variables related to student motivation in instrumental music* (Publication No. 9811178) [Doctoral dissertation, University of Michigan]. ProQuest Dissertations & Theses Global.
- Saygı, C. (2009). *Aktif öğrenmenin müzik tarihi dersine ilişkin başarı, tutum ve özyeterlik üzerindeki etkisi* [Unpublished doctoral dissertation]. Dokuz Eylül University.
- Schmidt, C. P. (2005). Relations Among motivation, performance achievement, and music experience variables in secondary instrumental music students. *Journal of Research in Music Education*, 53(2), 134-147. <https://doi.org/10.1177/002242940505300204>
- Sichivitsa, V. O. (2007). The influences of parents, teachers, peers and other factors on students' motivation in music. *Research Studies in Music Education*, 29(1), 55-68. <https://doi.org/10.1177/1321103X07087568>
- Silberman, M. (1996). *Active learning: 101 strategies to teach any subject*. Allyn&Bacon.
- Slavin, R. E. (2013). *Eğitim psikolojisi - Kuram ve uygulama* (G. Yüksel, Trans.). Nobel. (Original work published 1977)
- Sözen, İ. (2012). *İşbirlikli öğrenme yaklaşımı ile yapılan toplu bağlama öğretiminin performans ve tutuma etkisi* [Unpublished doctoral dissertation]. Abant İzzet Baysal University.
- Sungurtekin, K. M. (2010). Motivasyon ve çalgı eğitimindeki yeri. *e-Journal of New World Sciences Academy: Finearts*, 5(1), 28-34.
- Tandoğan, R. Ö. (2006). *Fen eğitiminde problem dayalı aktif öğrenmenin öğrencilerin başarılarına ve kavram öğrenmelerine etkisi* [Unpublished master's thesis]. Marmara University.
- Turan Engin, D. (2012). *Müzisyenlerin kişilik özellikleri, çalgılarına yönelik tutumları ve motivasyon düzeylerinin incelenmesi* [Unpublished doctoral dissertation]. Marmara University.
- Uysal, G. (2004). *İlköğretimde işbirlikli öğrenmenin müzik öğretiminde sınıf atmosferi ve şarkı söyleme becerileri üzerindeki etkisi* [Unpublished master's thesis]. Dokuz Eylül University.

- Yağıřan, N. (2008). *Keman almanın biyomekanik analizi*. Eđitim Kitabevi Yayınları.
- Yaltur, N. (2006). *İlköđretim 6. Sınıfların müzik dersinde aktif öđrenme yönteminin öđrenci başarısına etkisi*[Unpublished master's thesis]. Marmara University.
- Yıldız, Y. (2017). *Flüt eđitiminde tersyüz öđrenme modelinin öđrencilerin akademik başarıları motivasyonları ve performansları üzerine etkisinin incelenmesi* [Unpublished doctoral dissertation]. Marmara University.
- Yokuř, H. (2009). *Piyano eđitiminde öđrenme stratejilerinin kullanılmasına yönelik etkinliklerin performans başarısına ve üstbiliřsel farkındalıđa etkisi* [Unpublished doctoral dissertation]. Marmara University.
- Yokuř, T. (2009). *Gitar eđitiminde üstbiliřsel becerilerin geliřtirilmesine yönelik etkinliklerin performans başarısına etkisi* [Unpublished doctoral dissertation]. Marmara University.
- Zimmerman, J. R. (2005). *The effects of periodic self -recording, self -listening and self-evaluation on the motivation and music self-concept of high school instrumentalists* (Publication No. 3192056). [Doctoral dissertation, University of Minnesota]. ProQuest Dissertations & Theses Global.