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# Investigation of the Relationship Between Self-Perceptions of Fine Arts High School Students Towards Their Instruments and Their Music Performance Anxiety

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## Abstract

In the study, it was aimed to examine Fine Arts High School (FAHS) students' self-perceptions for their musical instruments and their music performance anxiety according to some variables. Also it was aimed to reveal the relationship between their self-perceptions for musical instrument and music performance anxiety. The sample of the research consisted of 273 music department students studying at Malatya Abdulkadir Eriş FAHS, Konya Çimento FAHS, Balıkesir T.C. Ziraat Bankası FAHS and Ayvalık Sebahat-Cihan Şişman FAHS. The data for the research were obtained by using the "Self-Perception Scale for A Musical Instrument" and the "Kenny Musical Performance Anxiety Scale". As a result of the study, it was determined that Ayvalık Sebahat-Cihan Şişman FAHS students had lower music performance anxiety than students of other schools. It was concluded that female students experienced more anxiety than male students. In addition, it was determined that as the duration of education increased, the level of self-perception for the musical instrument increased. A statistically significant negative weak correlation was found between self-perception for the musical instrument and musical performance anxiety values. In other words, it was concluded that as the students' self-perceptions for their musical instruments increased, their music performance anxiety decreased.

**Keywords:** Self-Perception for the Musical Instrument, Music Education, Music Performance Anxiety

## 1. Introduction

Anxiety, one of the most fundamental emotions individuals have experienced, is a feeling of unpleasant internal confusion. It can cause fatigue, muscle tension, restlessness, difficulty in breathing, tightness in the abdomen, nausea and concentration problems. Uncertainty in life and being unsure about the situations encountered can cause individuals to feel anxiety from time to time, and individuals with anxiety may hesitate to repeat situations that caused them anxiety in the past. American Psychological Association defines anxiety as “an emotion characterized by physical changes such as feelings of tension, anxious thoughts, and increased blood pressure” (Barker, 2003; Chand and Marwaha, 2022; Davison, 2008; Felman, 2020; Huberty, 2009; Miceli and Castelfranchi, 2015; “Overview-Generalized anxiety disorder in adults”, 2018).

Individuals may experience anxiety while taking an exam, speaking in front of the public, participating in sports competitions, performing arts such as dance, acting and music. This anxiety is encountered under different names in the literature such as performance anxiety, music performance anxiety, stage fright, stage excitement, concert anxiety (Baydağ & Alpagut, 2016; Baydağ & Bolat Başoğlu, 2018; Çimen, 2001; Gidergi Alptekin, 2012; Kabakçı, 2016; Kafadar, 2009; Kenny, 2011; Onuray Eğilmez, 2021; Özgür, 2017; Teztel & Aşkın, 2007; Topoğlu, 2014 Yağışan, 2009; Yöndem, 2012). All individuals who play an instrument engage in a long period of practice and devote months or even years to this practice in order to increase their mastery of their instruments and to identify with their instruments. However, these efforts are not enough to prevent some mistakes or to show the real performance from time to time during the performance with the instrument in front of the ensemble. Prejudiced thoughts, such as that something will go wrong before performing, increase music performance anxiety, negatively affect the self-confidence of the individual and cause them to experience such negative emotions more often. In cases where high levels of music performance anxiety are experienced, some physiological reactions may be observed, as well as discomfort up to the level of panic attacks. The aforementioned physiological reactions and various disorders caused by anxiety may also prevent the individual from performing the expected performance on stage. (Jelen, 2017; Kafadar, 2009; Wilson & Roland, 2002).

Music performance anxiety is a common problem not only among amateur but also professional musicians. Famous pianist F. Chopin; "I am not fit to give a concert. The audience scares me, I feel suffocated by their breath, startled by their curious gaze, and dumbfounded by all those foreign faces." In his words, he revealed how music performance anxiety is a situation that affects professionals. Famous musicians such as Maria Callas, Enrico Caruso, Pablo Casals, Luciano Pavarotti, Leopold Godowsky, Wladimir Horowitz, Ignacy Paderewski, Arthur Rubenstein and Sergei Rachmaninoff are also known to experience musical performance anxiety (Kenny, 2011; Ostwald, 1994; Schonberg, 1963; Valentine, 2002; Wilson & Roland, 2002). A study conducted on 214 professional artists on music performance anxiety and its causes proves this idea, with its result that 39% of musicians had music performance anxiety (Osorio et al., 2017).

There have been many studies on music performance anxiety. In a study conducted on 78 music teacher candidates, it was found that women experienced more music performance anxiety than men, graduated high school and grade level did not have a significant effect on music performance anxiety, and there was a negative relationship between self-confidence and music performance anxiety (Özevin Tokinan, 2014).

In another study conducted on students, studying at secondary and high school level in state conservatories, it was found that female students experienced higher performance anxiety than male students, and stringed instrument players experienced higher performance anxiety than other instrument groups. It was determined that students who had their first stage experience before the age of 5 had lower anxiety than students who had their first stage experience at older ages, it was seen that music performance anxiety increased as the level of education increased. It has also been found that there is a positive relationship between the music performance anxiety and age (Aydn and İşgörür, 2018).

In a study conducted on the causes of music performance anxiety, 57% of the participants stated that the difficulty of repertoire, 52% of the participants stated that concerns about the audience's reaction and 51% of the participants stated that feeling under pressure triggered performance anxiety. Among the methods of dealing with the anxiety in question are breathing and relaxation techniques with 66% and increasing working time with 53%. (Osorio et al., 2017). In another study conducted in various music schools, it was determined that meditation has a positive effect on music performance anxiety (Chang et al., 2003).

The above-mentioned studies on the causes and coping methods show that music performance anxiety is a problem encountered from time to time among musicians. It is thought that there may be a change in the level of anxiety felt by the individuals who play the instrument depending on their self-perceptions for their musical instruments, in other words, one of the factors affecting the music performance anxiety may be the individuals' self-perceptions about playing the instrument. This idea has been influential in shaping the present study.

“Self” is an individual's conscious evaluation of himself/herself (Baumeister, 1999; Pescitelli, 1996; Spreckly et al., 2009). How he/she perceives himself/herself, what his/her observations about himself/herself are the factors that constitute the self-concept. Self-concept has a genetic feature, but it is shaped by the individual's experience with his/her environment and is particularly affected by environmental reinforcements (Bayat, 2003; Shavelson et al., 1976). Beliefs such as "I am a good friend" or "I am a good person" are expressed as parts of a general self-concept. It is stated that self-perception is basically the sum of beliefs one has about one's own and others' reactions, in short, it is the answer to the question "Who am I?". It is known that how an individual perceives himself has a significant effect on his motivation, attitude and thoughts (Cherry, 2022).

Shavelson et al. (1976) discussed the self-concept hierarchically. Accordingly, at the top of the hierarchy is the general self-concept. General self-concept; when considered hierarchically, it is divided into academic and non-academic. The academic self-concept is divided into subject areas and then specific areas within a subject. The non-academic self-concept is divided into social, emotional and physical self-concepts and then more specific aspects similar to the academic self-concept. Academic self-concept consists of sub-factors such as mathematics, language, history and music, and music is divided into specific titles such as singing, playing an instrument and directing (Shavelson et al., 1976; Swann et al., 2007).

Shavelson et al. (1976), the place of the self-concept in music within the general self-concept is shown in Figure 1 (Özevin Tokinan, 2013; Ruismaki and Tereska, 2006; Vispoel, 1994).

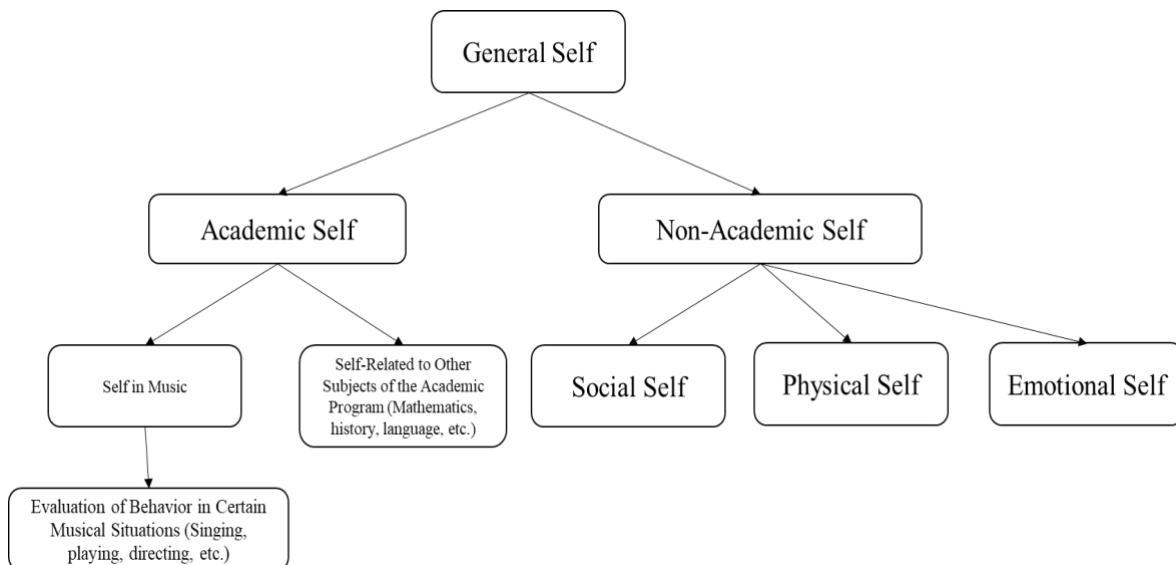


Figure 1: Self-concept in music in the hierarchical organization of the general self-concept

Self-concept in music is related to motivation towards music practice, especially intrinsic motivation. Students with high musical self-perceptions in educational settings tend to put more effort into musical outcomes and learning strategies and perform better in musical activities (Austin & Vispoel, 1998; Schmidt, 2005). Self-concept in music is part of a self-concept hierarchy that includes a superior artistic field and lower-level components (musical composition, playing an instrument, reading music, etc.) (Vispoel, 1995).

There are various studies that address the self-concept in music in terms of different variables. According to the results of these studies, it has been determined that women have higher motivation and participate more in musical activities compared to men (Evans et al., 2002; Jacobs et al., 2002; Simpkins et al., 2010; Wigfield et al., 1997). In addition, in the researches, gender differences in many dimensions of self-concept in music have been underlined and it has been found that women were more prominent. (Austin, 1991; Austin and Vispoel, 2000; Eccles et al. 1993; Forte and Vispoel 1995; Vispoel, 1993; Vispoel and Forte, 1994, 2000; Vispoel and Rizzo, 2003). Vispoel (1994) put forward that the self-concept in music becomes increasingly multifaceted as the individual ages and gains experience in music. However, the specific age at which this differentiation occurs has

not been determined in the empirical research. Although previous research has identified some age or class-related differences in self-perceptions in music, importance and interests in music (Austin and Vispoel, 2000; Eccles et al. 1993), the interrelationship between the structure of self-perception in music and the components of musical self-perception can be seen from middle school to university did not show any change (Vispoel, 2003). However, no systematic testing of the measurement invariance of measurements of self-concept in music across gender, age, and grade has been conducted. This is an important limitation of previous research in this area. Because measurement invariance is a critical prerequisite for any valid group-based comparison (Meredith, 1993; Millsap, 2011; Morin et al. 2015).

One of the sub-factors of self-concept in music is playing an instrument. Self-perception for the musical instrument refers to how the individual perceives himself/herself in playing the instrument, what qualities he/she has and what his/her goals are. It is very important for an individual to have a high level of self-confidence and feel competent in playing an instrument. Individuals who are not aware of their capacity, lack self-confidence and do not feel competent in their instrument cannot be expected to be successful (Otacıoğlu, 2009). In this context, it is thought that individuals' self-perceptions for their musical instruments have an effect on their instrument performance and therefore their performance anxiety. The research was designed based on this idea and was carried out in line with the following purpose.

## 2. Aim of the Study

In the study, it was aimed to examine the self-perceptions of the FAHS students for their musical instruments and their music performance anxiety according to some variables. Also it was aimed to reveal the relationship between students' self-perceptions for their musical instruments and their music performance anxiety. In line with this general purpose, it was tried to seek answers to the following questions.

Is there a significant difference in students' self-perceptions for their musical instruments:

1. according to gender?
2. according to the school?
3. according to the grade level?
4. according to the year of playing the instrument?

Is there a significant difference in students' music performance anxiety:

5. according to the gender?
6. according to the school?
7. according to the grade level?
8. according to years of playing the instrument?
9. Is there a significant relationship between students' self-perceptions for their musical instruments and their musical performance anxiety?

The research is important in terms of examining students' self-perceptions for their musical instruments and their musical performance anxieties with respect to some variables, and revealing the relationship between performance anxiety and self-perceptions for the musical instrument. The results of the research are also important in the sense that they shed light on new research to be conducted in this field.

## 3. Method

In the study, correlational research method, one of the quantitative research methods, was used. "Correlational studies are researches carried out to determine the relationships between two or more variables and to obtain clues about cause and effect" (Büyüköztürk et al., 2017).

### 3.1. Study Population and Samples

While determining the sample, schools located in different geographical regions in Turkey were selected. Participants in the research consist of music students studying at Malatya Abdulkadir Eriş FAHS in the Eastern Anatolia Region, Konya Çimento FAHS in the Central Anatolia Region, Balıkesir T.C. Ziraat Bankası FAHS and Ayvalık Sebahat-Cihan Şişman FAHS in the Marmara Region. A questionnaire was distributed to the whole schools, and 273 students who were willing to answer the questionnaire participated in the research. Descriptive statistics about the sample group are given in Table 1.

Table 1: Descriptive statistics about the sample group

		N (273)	%
<b>Gender</b>	Female	147	54
	Male	126	46
<b>School name</b>	Balıkesir T.C. Ziraat Bank FAHS	47	17
	Ayvalık Sebahat-Cihan Şişman FAHS	60	22
	Malatya Abdulkadir Eriş FAHS	100	37
	Konya Çimento FAHS	66	24
<b>Class</b>	9th grade	54	20
	10th Grade	101	37
	11th grade	56	20
	12th Grade	62	23
<b>Instrument Playing Duration</b>	Less than 1 year	45	16
	1 year	29	11th
	2 years	50	18
	3 years	44	16
	4 years	56	21
	More than 4 years	49	18
<b>Number of Events in a Year</b>	<b>School name</b>	<b>Number</b>	
	Balıkesir T.C. Ziraat Bankası FAHS	19	
	Ayvalık Sebahat-Cihan Şişman FAHS	41	
	Malatya Abdulkadir Eriş FAHS	9	
	Konya Çimento FAHS	22	

Of the 273 students who participated in the survey, 147 (54%) were female students, while 126 (46%) were male students. 37% were Malatya Abdulkadir Eriş FAHS, 24% Konya Çimento FAHS, 22% Ayvalık Sebahat-Cihan Şişman FAHS, and 17% Balıkesir T.C. Ziraat Bankası FAHS students. Likewise, 20% of these students were 9th grade students, 37% were 10'th grade, 20% were 11'th grade and 23% were 12'th grade students. 21% of the students have been playing instruments for 4 years, 18% for 2 years, again 18% for more than 4 years, 16% for less than 1 year, 16% for 3 years and 11% for 1 year. Considering the instrument playing times of the students, it was seen that all of them were almost numerically close to each other, in other words, they exhibit a homogeneous distribution. Nevertheless, it can be said that the students who participated in the survey were experienced students (3 years and above) in terms of playing instruments. Ayvalık Sebahat-Cihan Şişman FAHS was the school that held the most events in their school.

### 3.2. Data Collection Tools

The data were obtained by using the "Self-Perception Scale for A Musical Instrument" developed by Karabulut and Tufan (2014) and the "Kenny Music Performance Anxiety Scale" developed by Kenny (2004) that was adapted into Turkish by Banu Özevin Tokinan (2013).

**Self-Perception Scale for A Musical Instrument:** The scale is a 5-point Likert-type scale, consisting of 19 items that aims to measure students' self-perceptions for their musical instruments. Developed in 2014, the validity and reliability studies of the scale were conducted on 135 students attending the 11th grades of six fine arts high schools. SPSS statistical package program was used for analysis. Factor analysis was performed to determine the construct validity.

**Kenny Music Performance Anxiety Scale:** Kenny Music Performance Anxiety Scale is a 7- point Likert-type scale consisting of 25 items that aims to measure students' music performance anxiety. Validity and reliability studies have been carried out for the scale, and linguistic equivalence studies have been carried out to ensure its adaptation to Turkish culture. The studies were carried out with 696 students continuing their undergraduate education in the music education departments of various universities.

In the current study, the Cronbach's Alpha value of the self-perception for a musical instruments scale was found to be 0.91, while the Cronbach's Alpha value of the Music performance anxiety scale was found to be 0.95. These results show that the reliability values of the scales are quite sufficient. In other words, the reliability values of the scale items were found to be quite high. (Table 2)

Table 2: Reliability analysis of the scale

Scales	Number of Items	Cronbach's Alpha Values
Self-Perception for the Musical Instrument	19	0.912
Music Performance Anxiety	25	0.958

### 3.3. Data Collection and Analysis

The questionnaire for Konya Çimento FAHS and Balıkesir T.C. Ziraat Bankası FAHS were applied online, in Ayvalık Sebahat-Cihan Şişman FAHS and Malatya Abdulkadir Eriş FAHS it was applied to the classrooms during class hours.

Non-parametric tests were used because the mean values of the Self-Perception Scale for A Musical Instrument and the Music Performance Anxiety Scale, which were produced by taking the average values of the answers given by the students to the scales' questions in the survey, did not conform to the statistically normal distribution.

Mann-Whitney U Test was used to determine whether there was a statistically significant difference between the mean scores of students' self-perception for the musical instrument according to gender and teacher change. In addition, whether there is a statistically significant difference between the music performance anxiety averages of the students according to gender and teacher change was also analyzed with the Mann-Whitney U Test. The Mann-Whitney U Test is used when it is desired to compare whether two populations have a similar distribution. The Mann-Whitney U Test is widely used as an alternative to the t-test, which is one of the parametric tests, in non-parametric tests (Bayram, 2015).

In addition, Kruskal Wallis was used to determine whether there was a statistically significant difference in students' mean self-perception for the musical instrument according to schools, grade level and duration of playing the instrument. The Kruskal Wallis test was used to analyze whether there was a statistically significant difference in the musical performance anxiety averages of the students according to the schools, grade level and instrument playing time. The Kruskal Wallis H Test is the equivalent of the one-way analysis of variance (ANOVA) test in non-parametric tests. With this test, it is investigated whether the K sample comes from the same population or from populations with equal averages (Bayram, 2015). Spearman's Rank Correlation was used to determine the relationship between students' self-perception averages for the musical instrument and their musical performance anxiety averages.

## 4. Findings

### 4.1. Findings Regarding the First Research Question

Table 3 shows whether the mean rank of the male and female students' self-perception for the musical instrument is different from each other.

Table 3: Self-perception for the musical instrument by gender

Descriptive Statistics			Mann-Whitney U Test statistic	Sig.
Gender	N	Mean Rank		
Female	147	133.03	8677.50	0.369
Male	126	141.63		

In Table 3, when the Mann-Whitney U Test statistic and its significance value are analyzed, it is seen that the value is 0.369, which is higher than 0.05 at 95% confidence level. According to this result, it was determined that there was no statistically significant difference between the students' self-perception averages for the musical instrument, according to gender.

### 4.2. Findings Regarding the Second Research Question

Table 4 shows whether there is a statistically significant difference between the self-perception averages of students from four different schools for the musical instrument.

Table 4: Self-perception for the musical instrument by school

Descriptive Statistics			Chi Square	Sig.
School Name	N	Mean Rank		
Balikesir T.C. Ziraat Bank FAHS	47	141.17	0.966	0.809
Ayvalık Sebahat-Cihan Şişman FAHS	60	141.29		
Malatya Abdulkadir Eriş FAHS	100	130.90		
Konya Çimento FAHS	66	139.37		

According to the Kruskal Wallis H Test result in Table 4, the significance value is 0.809, which is higher than 0.05 at 95% confidence interval. According to this result, it was determined that there was no statistically significant difference between the self-perception averages of the students for the musical instrument in four different schools.

### 4.3. Findings Regarding the Third Research Question

Table 5 reveals whether there is a statistically significant difference between the averages of students' self-perception for the musical instrument in four different classes.

Table 5: Self-perception for the musical instrument by grade level

Descriptive Statistics			Chi Square	Sig.
Class	N	Mean Rank		
9th grade	54	143.49	4,703	0.195
10th Grade	101	138.25		
11th grade	56	148.25		
12th Grade	62	119.15		



According to the Kruskal Wallis H Test result in Table 5, it is seen that the significance value is 0.195, that is, it is higher than 0.05 at 95% confidence interval. As a result, there is no statistically significant difference between the average of self-perceptions of students for the musical instrument in four different classes.

#### 4.4. Findings Regarding the fourth research Question

In Table 6, it is revealed whether there is a statistically significant difference between the averages of the students' self-perception for the musical instrument in different playing periods.

Table 6. Self-perception for the musical instrument according to the instrument playing time

Descriptive Statistics			Chi Square	Sig.
Instrument Playing Time	N	Mean Rank		
Less than 1 year	45	127.37	10,558	0.050
1 year	29	117.43		
2 years	50	146.12		
3 years	44	129.24		
4 years	56	128.38		
More than 4 years	49	164.94		

According to the Kruskal Wallis H Test result in Table 6, it is seen that the significance value is 0.050, that is, it is equal to 0.05 at 95% confidence interval. In other words, there is a statistically significant difference between the averages of the students' self-perception for the musical instrument in six different instrument playing times. The mean rank value of the students whose instrument playing time is longer than 4 years was higher than the others.

#### 4.5. Findings Regarding the Fifth Research Question

Table 7 shows whether the music performance anxiety averages of male and female students differ from each other.

Table 7: Music performance anxiety status by gender

Descriptive Statistics			Mann-Whitney U Test statistic	Sig.
Gender	N	Mean Rank		
Female	147	158.94	6035,500	0,000
Male	126	111.40		

Looking at the Mann-Whitney U Test statistic and its significance value in Table 7, it is seen that the significance value is less than 0.05 at 95% confidence interval. As a result, it is seen that there is a statistically significant difference between the music performance anxiety averages of the students according to gender. When the mean rank value is analyzed, it has been determined that the value of male students is lower than that of female students.

#### 4.6. Findings Regarding the Sixth Research Question

Table 8 shows whether there is a statistically significant difference between the music performance anxiety averages of students from four different schools.

Table 8: Music performance anxiety status by school variable

Descriptive Statistics			Chi Square	Sig.
School name	N	Mean Rank		
			10,160	0.017

Balikesir T.C. Ziraat Bank FAHS	47	142.12
Ayvalık Sebahat-Cihan Şişman FAHS	60	109.88
Malatya Abdulkadir Eris FAHS	100	140.31
Konya Çimento FAHS	66	152.99

Looking at the Kruskal Wallis H Test statistic and its significance value in Table 8, it is seen that the significance value is 0.017, that is, it is lower than 0.05 at 95% confidence interval. As a result, it is seen that the mean rank value of Ayvalık Sebahat-Cihan Şişman FAHS is lower than the averages of other schools.

#### 4.7. Findings Regarding the seventh research Question

Table 9 shows whether there is a statistically significant difference between the music performance anxiety averages of the students in four different classes.

Table 9: Music performance anxiety by grade level

Descriptive Statistics			Chi Square	Shallow.
Class	N	Mean Rank		
9th grade	54	146.77	2,894	0.408
10th Grade	101	140.76		
11th Grade	56	122.83		
12th Grade	62	135.16		

According to the Kruskal Wallis H Test result in Table 9, the significance value is 0.408, which is higher than 0.05 at 95% confidence interval. As a result, there is no statistically significant difference between the music performance anxiety averages of the students in four different classes.

#### 4.8. Findings Regarding the Eighth Research Question

Table 10 shows whether there is a statistically significant difference between the music performance anxiety averages of the students in six different instrument playing periods.

Table 10: Music performance anxiety status by instrument playing time

Descriptive Statistics			Chi Square	Shallow.
Instrument Playing Time	N	Mean Rank		
Less than 1 year	45	139.86	5,346	0.375
1 year	29	141.66		
2 years	50	156.11		
3 years	44	133.49		
4 years	56	122.09		
More than 4 years	49	132.32		

According to the Kruskal Wallis H Test result in Table 10, the significance value is 0.375, which is higher than 0.05 in the 95% confidence interval. As a result, there is no statistically significant difference between the music performance anxiety averages of the students in six different instrument playing times.

#### 4.9. Findings Regarding the Ninth Research Question

Table 11 shows the relationship between students' self-perceptions for their musical instruments and their music performance anxiety.

Table 11: The relationship between self-perception for the musical instrument and music performance anxiety

Descriptive Statistics		Spearman's rho	Sig.
<b>scales</b>	<b>N</b>		
Average of Self-Perception for the Musical Instrument	273	-0.270	0,000
Average of Music Performance Anxiety	273		

According to the result of the correlation analysis in Table 11; There is a statistically significant negative weak correlation between the average of the Self-Perception Scale for the Musical Instrument and the average of the Music Performance Anxiety Scale.

## 5. Discussion and Conclusion

### 5.1. Discussion and Results Regarding the First Research Question

No significant difference was found in the self-perceptions of FAHS students for their musical instruments, according to the gender variable. As a result of this finding, it can be said that there is no difference in the self-perceptions of male and female students for their musical instruments. This situation can be attributed to the fact that the education curriculum of the students is the same, the co-education model is applied without gender discrimination, and the opportunities provided by the principle of equality in the conditions of education are applied in the same way for everyone. In some studies, conducted on adolescents, no significant difference was found between gender and self-perception (Altuntaş, 2020; Elsel, 2021). However, in other studies on self-perception for the musical instrument, it is seen that male students have higher self-perceptions than female students (Arıcı, 2019; Karabulut, 2014).

### 5.2. Discussion and Results Regarding the Second Research Question

No significant difference was found in the self-perceptions of FAHS students for their musical instruments, according to the school variable. According to this result, it can be said that the school they attend does not affect the students' self-perception for their musical instruments. Considering the fine arts high schools participating in the survey, the sufficient internet infrastructure in the Central Anatolia, Eastern Anatolia and Marmara regions of Turkey where the sample group in question was selected, the curriculum determined by the ministry of education being processed in the same way in these schools, the presence of sufficient number of teachers and administrative personnel in the schools, and the fact that there are no problems in the technical infrastructure and facilities at a level that hinders education can be shown as the reason why there is no significant difference in students' self-perceptions for the musical instrument between schools. However, in a study, contrary to the current results, it was stated that students studying in Southeastern Anatolia and Eastern Anatolia had higher self-perceptions for the musical instrument than students studying in other regions (Karabulut, 2014).

### 5.3. Discussion and Results Regarding the Third Research Question

No significant difference was found in the self-perceptions of FAHS students for their musical instruments, according to the grade level variable. In this result, it can be said that students' self-perceptions for the musical instrument do not differ by grade level. The fact that the students had similar school experiences may be cited as a reason for this result. Similarly, in Elsel's (2021) study conducted on adolescents, no significant difference was found between class level and self-perception. Contrary to the results of the current research, in another study conducted with high school students, it was determined that self-perception differs according to grade level (Erözkan, 2004).

### 5.4. Discussion and Results Regarding the Fourth Research Question

A significant difference was found in FAHS students' self-perceptions for their musical instruments, according to the variable of instrument playing time. The fact that the students spent a long time with their instruments and had

the opportunity to perform many performances during this time may have been effective in increasing their self-perceptions for their musical instruments. The increase in the duration of playing instruments may have increased the students' sense of belonging to their instruments and gave them time to realize themselves. According to this result, it can be said that the duration of playing the instrument affects the self-perception for the musical instrument. Arıcı (2019) also concluded in his research that as students' individual instrument playing time increases, their level of self-perception for their musical instruments also increases.

#### *5.5. Discussion and Results Regarding the Fifth Research Question*

A significant difference was found in the music performance anxiety of FAHS students according to gender variable. Based on this result, in terms of gender variable, it was concluded that female students have higher music performance anxiety than male students. In a study, it was determined that women were diagnosed with psychological disorders more than men (Marye, 2011). Music performance anxiety is also a psychological disorder that affects individuals (Kenny, 2005). The fact that women experience more performance anxiety than men can be attributed to this situation. In some studies, it has been stated that the anxiety levels of girls are higher than boys (Yöndem, 2007; Özevin Tokinan, 2014; Studer et al., 2011; Abel et al., 1990; Jelen, 2017; Kaspersen and Gotestam, 2002; Steptoe et al., 1995). Abel et al. (1990) stated that this gender-based difference in music performance anxiety may be due to the fact that women are more likely to express anxious feelings openly than men.

#### *5.6. Discussion and Results Regarding the Sixth Research Question*

A significant difference was found in the music performance anxiety of FAHS students according to the school variable. According to this result, it can be said that the school variable affects the state of music performance anxiety. The school with the lowest level of music performance anxiety was found to be Ayvalık Sebahat-Cihan Şişman FAHS. As can be seen in Table 1, the fact that the students at the school in question gave many concerts and organized many activities can be cited as a reason for this. The fact that the students were in environments where they would perform a lot may have increased their self-confidence and ensured that their anxiety levels were low during the performance. Contrary to the current research results, there are also studies that conclude that the school variable does not have a significant effect on music performance anxiety (Baydağ & Alpagut, 2016; Erözkan, 2020).

#### *5.7. Discussion and Results Regarding the seventh research Question*

No significant difference was found in the music performance anxiety levels of the FAHS students according to the class variable. According to this conclusion, it can be said that the grade level variable does not affect the music performance anxiety state. The fact that the students have similar school experiences may be cited as a reason for this result. It has been observed that some studies in the literature have findings that support the results of the current research (Erözkan, 2020; Güdek and Çiçek, 2017). In another study, it was concluded that the class variable had an effect on music performance anxiety, and it was determined that as the class levels of the students increased, their performance anxiety levels also increased (Aydın, 2017).

#### *5.8. Discussion and Results Regarding the Eighth Research Question*

No significant difference was found in the musical performance anxiety of the FAHS students according to the instrument playing time variable. As a result, there is no statistically significant difference between the music performance anxiety averages of the students in six different instrument playing times. In some studies, it was concluded that the duration of education did not affect the music performance anxiety (Özevin, Tokinan, 2014; Sadler and Miller, 2010).

### 5.9. Discussion and Results Regarding the Ninth Research Question

A statistically significant negative weak relationship was found between the average values of the Self-Perception Scale for a Musical Instrument and the average values of the Music Performance Anxiety Scale. In other words, it was concluded that as the students' self-perceptions for their musical instruments increased, their music performance anxiety decreased.

The fact that students with high self-perception for the musical instrument have a good command of the piece they will perform, have a high sense of belonging to their instruments, pay the necessary attention to the piece they will perform and continue their studies in this way, as mentioned in the scale of self-perception for the musical instrument, the fact that students love their instruments, stating that the time they spend practicing with their instruments is enjoyable, expressing that their instruments reveal their talents and make them feel privileged in society can be shown as reasons for low music performance anxiety.

Accordingly, the results obtained from the study can be summarized as follows:

- 1- There was no statistically significant difference between the averages of students' self-perception for the musical instrument according to gender, four different schools, and grade level, but the difference was found to be significant according to the duration of playing the instrument.
- 2- While a statistically significant difference was found in favor of male students and in favor of Ayvalık Sebahat-Cihan Şişman Güzel Sanatlar High School, there was no significant difference in terms of grade level and instrument playing time.
- 3- A statistically significant negative weak relationship was found between the average values of the Self-Perception Scale for A Musical Instrument and the average values of the Music Performance Anxiety Scale.

## 6. Recommendations

In order to obtain more precise generalizations about the results related to the current research topic, it may be recommended to conduct different studies on larger, different samples and by increasing the variables used. In order for students to increase their self-perception for their musical instruments, it can be suggested that they should sufficiently examine the works they will perform, carry out the necessary research and studies on them, internalize the works they will perform by practicing them sufficiently, create a programmed study discipline related to the work they will perform, and work diligently on specific points in line with the directives of their instrument teachers. As a result of the research, it was determined that music performance anxiety decreased with the increase of self-perception for the musical instrument. Accordingly, it is thought that the implementation of the aforementioned suggestions will help students to decrease their music performance anxiety along with the increase in their self-perceptions for their musical instruments.

As a result of the research, it was determined that the school and education duration variable affected students' music performance anxiety. It is thought that the number of events such as concerts organized by the schools during the year and the duration of the education received by the students affect this result. Accordingly, it can be suggested to make arrangements in the curriculum to enable FAHS students to practice their instruments more, to increase instrument lesson hours, to enable students to perform on stage more frequently, and to provide information and practices on methods of coping with music performance anxiety in order to reduce the level of music performance anxiety.

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