

Self-Efficacy Perceptions of Music Department Students on Instrument Performance

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Abstract

The purpose of this study is to determine the self-efficacy perceptions of undergraduate students studying at the Music Department on individual instruments, and to examine whether students' self-efficacy perception on instrument performance differed significantly according to various variables such as year, gender, the type of high school graduated from, the main instrument being studied, how much they practiced on their instrument, the individual instrument practice time, the instrument course grade, and the university being attended. The survey model, one of the quantitative research methods, was used in the research. The study group consisted of 102 students studying at the Music Department of Kırşehir Ahi Evran University's Neşet Ertaş Faculty of Fine Arts (n=45) and the Music and Performing Arts Department of Nevşehir Hacı Bektaş Veli University's Faculty of Fine Arts (n=57). For data collection, the Personal Information Form and the Instrument Performance Self-Efficacy Belief Scale developed by Girgin (2015) were used in the study. The twenty-item five-point Likert type scale has three sub-dimensions, namely self-efficacy, self-inefficacy, and psychological indicators. While analyzing the data, descriptive statistics and parametric tests, t-test and One Way Anova Test were used. The study results revealed that students' self-efficacy perceptions on instrument performance were "undecided" in the total scale, and "disagree" in the self-inefficacy subdimension. Students' self-efficacy perceptions differed significantly according to the variables of individual instrument practice time and the instrument course grade, and there was a significant difference in the psychological indicators subdimension according to the gender variable in favor of the males. Furthermore, there was no significant difference according to the variables of year, the type of high school graduated from, the main instrument being studied, and the university being attended. Recommendations were given based on the study results.

Keywords: Self-Efficacy Perception, Instrument Performance Self-Efficacy, Music Education, Faculty of Fine Arts

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INTRODUCTION

Self-efficacy is a concept that was first introduced by Albert Bandura within the framework of Social Learning Theory. Bandura (1997) defines this concept as an individual's belief in the ability to plan and carry out the necessary actions in the process of achieving the determined goals. In other words, self-efficacy helps to determine how much effort individuals will put into an activity, how long they will endure when they encounter obstacles, or how resistant they will be in the face of adverse situations (Schunk & Pajares, 2009). In addition, according to social cognitive theorists, the individual's perception of self-efficacy strongly influences the choices individuals make, the effort they spend to accomplish a task, and the degree of anxiety they experience (Işıkal & Aşkar, 2003).

Self-efficacy is a key concept stating that people should have self-confidence in order to use their skills in the most effective way and to reveal their potential at the highest level. People with high self-efficacy beliefs do not hesitate to cope with the difficulties they encounter, and they act very decisively to complete their tasks successfully. On the other hand, individuals with low self-efficacy beliefs avoid struggling with difficulties, easily get stressed, and may become anxious.

A student with a high level of self-efficacy for a performance and a student with a low level of self-efficacy are different from each other. Because, the student with high self-efficacy expects to be successful as a result of performance and their level of estimating their own performance levels clearly and accurately is higher than students with low self-efficacy levels (Bouffard-Bouchard, 1989).

One of the performance-oriented areas that self-efficacy is frequently studied is music education. Because the music education process includes many skill learnings from beginning to end and self-efficacy based on frequent performance is constantly tested. Individuality also comes to the forefront in this process. One of the most important learning activities in music education is instrument training. Instrument training can be defined as the process of making desired changes in an individual's cognitive, affective, or psychomotor behaviors in his/her own life through instrument education. Instrument training, aims the individual to acquire many technical and musical behaviors and to improve his/her existing skills. For this purpose, students are expected to go through a systematic and effective instrument training process. According to Özmenteş (2008:161), in order for a successful instrument training, the student's instrument training period should be spent in the most effective way. Also, subjects such as effective practice and learning tactics in instrument training, and all the stages of development of student achievement and the practice process being realized under the student's own supervision should be addressed with importance by instrument educators. In this context, it can be stated that instrument training covers all the learning tactics and strategies required to display performance at the maximum level for a goal-oriented practice.

Pintrich and De Groot (1990) expressed that the student should be motivated to use the correct strategies effectively in the process to increase his/her achievement. They underlined that one of the motivational elements in question is the perception of self-efficacy, which represents one's belief in his/her own capacity. It is possible to say that the positive relationship between self-efficacy and motivation also brings achievement.

There are many studies examining the relationship between musical performance and self-efficacy in the relevant literature (McCormick & McPherson, 2003; McPherson & McCormick, 2006; Thompson, 2007; Silverman, 2008; Yıldırım 2009; Welch et al., 2009; Şeker & Bilen, 2010; Özmenteş, 2011; Küçük, 2011; Yokuş, 2014; Özmenteş, 2014; Gün & Yıldız, 2014; Girgin, 2015; Zelenak, 2015; Şeker, 2014; Şeker, 2016; Girgin, 2017, Şentürk & Bölek, 2019; Meydan & Çilden, 2020). For example, McCormick and McPherson (2003) argued that self-efficacy involves both organizing and executing the tasks and skills necessary to demonstrate competent performance. In another study, Şentürk and Bölek (2019) addressed the importance of determining the self-efficacy levels of individuals in order to realize achievement and motivation in performance and skill-based music education. Meydan and Çilden (2020), on the other hand, developed a valid and reliable measurement tool in the likert type in order to determine the self-efficacy of students playing the

violin at the undergraduate level. In this study, it has been tried to explain the self-efficacy perceptions of the students who receive music education by examining many more variables such as age, gender, course success, instrument study hours.

We know that the most important indicator that allows us to determine the self-efficacy level of the individual is the individual's self-efficacy perception. It can be said that the perception of self-efficacy is one of the affective characteristics, and it is a factor that significantly affects the individual's willingness to work towards instrument education, his/her motivation, and his/her ability to struggle against technical and musical difficulties. In this context, the problem statement of this study was determined as "What are the self-efficacy perceptions of students studying at the Faculty of Fine Arts Music Department on individual instruments?". In this study, the instrument performance self-efficacy of the students will be examined in detail by making various relational scans on different variables such as age, gender and course success. In addition, taking into consideration the study purpose and students' self-efficacy perception on instrument training, one of the important dimensions of music education, this study is important in terms of increasing the effectiveness of instrument training, have positive effects on individuals' musical life and performance, and positively affect their motivation and attitudes and contributing to future research.

Purpose

The purpose of the study is to examine the self-efficacy perceptions of students studying at Kırşehir Ahi Evran University's Neşet Ertaş Faculty of Fine Arts and Nevşehir Hacı Bektaş Veli University's Faculty of Fine Arts on instrument performance in terms of various demographic characteristics. For this purpose, the answers to the following sub-problems were sought.

1. What are the Faculty of Fine Arts (FFA) students' total scale and scale subdimension mean scores of self-efficacy perception on instrument performance?
2. Is there a significant difference between the FFA students' total scale and scale subdimension mean scores of self-efficacy perception on instrument performance according to the "year" variable?
3. Is there a significant difference between the FFA students' total scale and scale subdimension mean scores of self-efficacy perception on instrument performance according to the "gender" variable?
4. Is there a significant difference between the FFA students' total scale and scale subdimension mean scores of self-efficacy perception on instrument performance according to the "the type of high school graduated from" variable?
5. Is there a significant difference between the FFA students' total scale and scale subdimension mean scores of self-efficacy perception on instrument performance according to the "the main instrument being studied" variable?
6. Is there a significant difference between the FFA students' total scale and scale subdimension mean scores of self-efficacy perception on instrument performance according to the "the individual instrument practice time" variable?
7. Is there a significant difference between the FFA students' total scale and scale subdimension mean scores of self-efficacy perception on instrument performance according to the "the instrument course grade" variable?
8. Is there a significant difference between the FFA students' total scale and scale subdimension mean scores of self-efficacy perception on instrument performance according to the "the university being attended" variable?

METHOD

Study Design

In this study, the relational survey model, which is included in the survey model, which is one of the quantitative research types, was used. Relational survey designs are research designs that aim to determine the presence and/or degree of change between two or more variables (Karasar, 2005). In the relational survey design, the data obtained from the variables using measurement tools are analyzed using certain statistical methods and the possible relationship between the variables is expressed numerically (Creswell, 2014).

In this study, FFA students' self-efficacy perception on instrument performance and its subdimensions were considered as phenomena and during the research process, these phenomena were described and associated.

Study Group

The study group of this research was formed by using purposive sampling method. The purposive sampling is a method used to select information-rich cases in the context of the purpose of the study in order to conduct in-depth research (Büyüköztürk et al.,2009, p.88). The distribution of students according to their gender and the university they study at is presented in Table 1.

Table 1. Distribution of the Students in the Study Group according to their Gender,Year and University

University	N	Gender					Year			
		%	Male	%	Female	%	3rd	%	4th	%
Kırşehir Ahi Evran University Neşet Ertaş FFA	45	44.11	28	27.45	17	16.66	18	17.64	27	26.47
Nevşehir Hacı Bektaş Veli University FFA	57	55.89	27	26.48	30	29.41	29	28.43	28	27.46
Total	102	100	55	53.93	47	46.07	47	46.07	55	53.93

In table 1, the study group consisted of 102 3rd year (n=47, %=46.07) and 4th year (n=55, %=53.93) students studying at the Music Department of Kırşehir Ahi Evran University's Neşet Ertaş Faculty of Fine Arts (n=45) and the Music and Performing Arts Department of Nevşehir Hacı Bektaş Veli University's Faculty of Fine Arts (n=57).

47 of the study group (46.07%) were females and 55 (53.93%) were males. 45 of the study group (44.11%) were studying at Kırşehir Ahi Evran University's Neşet Ertaş FFA and 57 (55.89%) were studying at Nevşehir Hacı Bektaş Veli University's FFA.

Data Collection Tools

The first of the data collection tools of the study was the Personal Information Form. The Personal Information Form included demographic characteristics such as FFA students' gender, the type of high school they graduated from, the main instrument they studied, how much time they practiced their instrument, their instrument course grade, and the university they studied at. As the second data collection tool, the Instrument Performance Self-Efficacy Belief Scale, a 20 item five-point likert-type scale developed by Girgin (2015), was used to determine students' self-efficacy perceptions on their instrument performance. The scale consists of three subdimensions, namely self-efficacy, self-inefficacy, and psychological indicators. The students were asked to read the scale items and mark one of the responses that are most appropriate for them. These responses were "1=Strongly disagree", "2=Disagree", "3=Undecided", "4=Agree" and "5=Strongly agree". The evaluation scale used in the interpretation of the mean values was formed using the Range/Group Number. Accordingly, the evaluation scale for the items in the data collection tool is presented in Table 2.

Table 2. Evaluation Scale of the Items in the Data Collection Tool

Positive Item Weights	Limit	Positive Item Responses	Negative Item Responses	Negative Item Weights
5	4.21–5.00	Strongly Agree	Strongly Disagree	1
4	3.41–4.20	Agree	Disagree	2
3	2.61–3.40	Undecided	Undecided	3
2	1.81–2.60	Disagree	Agree	4
1	1.00–1.80	Strongly Disagree	Strongly Agree	5

In table 2, Girgin (2015) performed exploratory factor analysis for the reliability of the scale. Girgin (2015) started the exploratory factor analysis with a total of 35 items in his scale development study, and removed a total of 15 items with a factor load value below 0.40 and included in more than one factor. As a result of the analysis in which the items of the Instrument Performance Self-Efficacy Belief Scale were rotated using the varimax vertical rotation method, it was determined that it explained 47% of the total variance of the scale.

The factor analysis results put forth that the scale had three factors. The Cronbach's alpha reliability coefficient of the 1st factor, self-efficacy was .86, the Cronbach's alpha reliability coefficient of the 2nd factor, self-inefficacy, was .76, and the Cronbach's alpha reliability coefficient of the 3rd factor, psychological indicators was .61. The factors that make up the scale and the internal consistency coefficients for the total scale as a result of the reliability analysis performed by the researchers are presented in Table 3.

Table 3. Internal Consistency Coefficients of the Factors

Factors	Cronbach's Alpha	N
Self-efficacy	.838	10
Self-inefficacy	.719	5
Psychological indicators	.600	5
Total Scale	.873	20

According to Table 3, the Cronbach's alpha reliability values of the factors that make up the measurement tool were between .600 and .838. The Cronbach's alpha value for the total scale was .873. This value indicates that the scale is reliable in terms of the internal consistency of the scale (Kayış, 2008).

Data Collection

The data of this research were collected face-to-face from a total of 102 students studying at the Music Department of the Neşet Ertaş Fine Arts Faculty of Kırşehir Ahi Evran University and the Music and Performing Arts Department of the Nevşehir Hacı Bektaş Veli University Fine Arts Faculty by researchers . In this research, the answers of the students to the scale were made on a voluntary basis. The scale used in the research was distributed to the students and they were asked to fill in the scale completely, and the completed scales were analyzed by the researchers using the SPSS-15 statistical program for analysis.

Data Analysis

Before analyzing the data obtained from the study group, whether the data showed normal distribution or not was examined. For this, the results of the Kolmogorov-Smirnov Test were assessed (Table 4).

Table 4. Kolmogorov-Smirnov Test Results of the Instrument Performance Self-Efficacy Belief Scale Scores

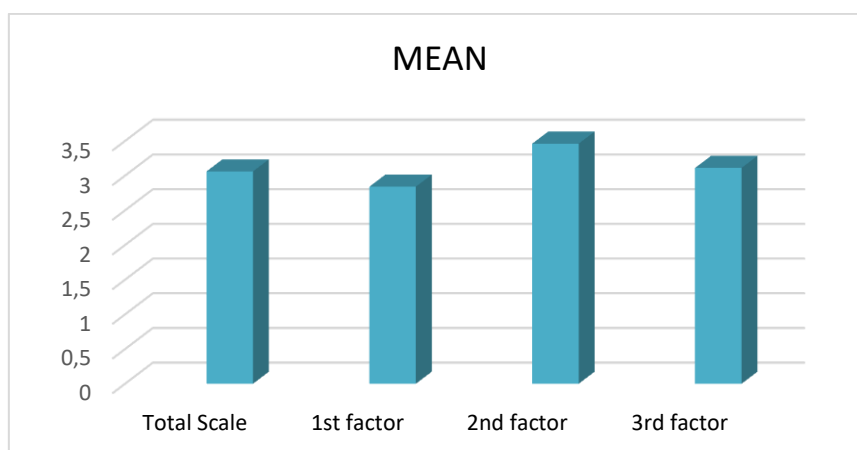
N	\bar{X}	S	Kolmogorov-Smirnov	p
102	3.06	.63	.574	.896

According to Table 4, scale data show normal distribution since $p > .05$. For this reason, parametric tests were used in the analysis of the data obtained from the scale. The significance level in all analyzes was determined as .05. In the analyzes with significant differences, Cohen's d (d) effect size coefficient for the t-test and eta-square (η^2) effect size coefficients for One Way Anova were calculated. In the interpretation of the coefficients, for Cohen's d value, effect size close to 0.2 level was interpreted as "small", effect size close to 0.5 level was interpreted as "medium", and effect size close to 0.8 level was interpreted as "large" (Green & Salkind, 2005, as cited in Can, 2013). For eta-square (η^2), effect size close to 0.01 was interpreted as "small", effect size close to 0.06 was interpreted as "medium", and effect size close to 0.14 was interpreted as "large" (Büyüköztürk, 2003).

FINDINGS

First Sub-Problem Findings Regarding FFA Students' Scores of the Instrument Performance Self-Efficacy Belief Scale and Its Subdimensions

The descriptive statistics results regarding FFA students' scores of the "Instrument Performance Self-Efficacy Scale" and its sub-dimensions are presented in Graph 1.



Graphic 1. Descriptive Statistics Results on Instrument Performance Self-Efficacy Scale and Sub-Factors of Faculty of Fine Arts (FFA) Students

According to Graph 1, students marked "undecided" ($\bar{X} = 2.84$) in the self-efficacy factor, they marked "disagree" ($\bar{X} = 3.46$) in the "self-inefficacy" factor, and they marked "undecided" ($\bar{X} = 3.11$) in the "psychological indicators" factor of the Instrument Performance Self-Efficacy Scale. Students' mean score for the total scale is $\bar{X} = 3.06$. Accordingly, they had an "undecided" perception.

Second Sub-Problem Findings Regarding FFA Students' Scores of the Instrument Performance Self-Efficacy Belief Scale and Its Subdimensions According to the "Year" Variable

Independent samples t-test was performed between students' mean scores of the Instrument Performance Self-Efficacy Belief Scale and its subdimensions and the year variable.

The results of the independent samples t-test performed to determine whether there was a significant difference between the mean scores of the Instrument Performance Self-Efficacy Belief Scale and its subdimensions according to the year variable are presented in Table 5.

Table 5. The t-Test Results of the Mean Scores of the Instrument Performance Self-Efficacy Belief Scale and Its Subdimensions According to the Year Variable

	Year	N	\bar{X}	S	sd	t	p
Self-efficacy	3	47	2.90	.70	100	.808	.421
	4	55	2.78	.72			
Self-inefficacy	3	47	3.52	.85	100	.684	.496
	4	55	3.41	.75			
Psychological indicators	3	47	3.12	.71	100	.172	.864
	4	55	3.10	.79			
Total Scale	3	47	3.11	.62	100	.722	.472
	4	55	3.02	.64			

*p<.05

According to the results presented in Table 5, there was no significant difference between the students' mean scores of the Instrument Performance Self-Efficacy Belief Scale and its subdimensions according to the year variable [$t_{(100)} = 0.808, p>.05$; $t_{(100)} = 0.684, p>.05$; $t_{(100)} = 0.172, p>.05$; $t_{(100)} = 0.722, p>.05$].

Third Sub-Problem Findings Regarding FFA Students' Scores of the Instrument Performance Self-Efficacy Belief Scale and Its Subdimensions according to the "Gender" Variable

Independent samples t-test was performed between students' mean scores of the Instrument Performance Self-Efficacy Belief Scale and its subdimensions and the gender variable.

The results of the independent samples t-test performed to determine whether there was a significant difference between the mean scores of the Instrument Performance Self-Efficacy Belief Scale and its subdimensions according to the gender variable are presented in Table 6.

Table 6. The T-Test Results of the Mean Scores of the Instrument Performance Self-Efficacy Belief Scale and Its Subdimensions According to the Gender Variable

	Gender	N	\bar{X}	S	sd	t	p	Cohen's d
Self-efficacy	Female	47	2.75	.75	100	1.078	.284	
	Male	55	2.91	.67				
Self-inefficacy	Female	47	3.31	.85	100	1.769	.080	
	Male	55	3.59	.73				
Psychological indicators	Female	47	2.93	.63	100	2.241	.027*	0.45
	Male	55	3.26	.81				
Total Scale	Female	47	2.94	.65	100	1.831	.070	
	Male	55	3.17	.59				

*p<.05

According to students' mean scores of the Instrument Performance Self-Efficacy Belief Scale, there was no significant difference in general according to the gender variable [$t_{(100)}=1.831, p>.05$]. While the Instrument Performance Self-Efficacy Belief Scale's subdimension of "self-efficacy" [$t_{(100)} = 1.078, p>.05$] and "self-inefficacy" [$t_{(100)} = 1.769, p>.05$] did not differ significantly according to the gender variable, there was significant difference in the subdimension of "psychological indicators" in favor of males ($\bar{X} = 3.26$) [$t_{(100)} = 2.241, p<.05$]. According to the calculated effect size (Cohen's d) coefficient value, the gender variable had "medium" effect size in terms of "psychological indicators" ($d=0.45$).

Fourth Sub-Problem Findings Regarding FFA Students' Scores of the Instrument Performance Self-Efficacy Belief Scale and Its Subdimensions according to the "Type of High School Graduated From" Variable

Independent samples one-way analysis of variance (One Way Anova) was performed between students' mean scores of the Instrument Performance Self-Efficacy Belief Scale and its subdimensions and the type of high school graduated from variable.

The results of the independent samples one-way analysis of variance performed to determine whether there was a significant difference between the mean scores of the Instrument Performance Self-Efficacy Belief Scale and its subdimensions according to the type of high school graduated from variable are presented in Table 7.

Table 7. The One Way Anova Test Results of the Mean Scores of the Instrument Performance Self-Efficacy Belief Scale and Its Subdimensions According to the Type of High School Graduated from Variable

	Type of high school	N	\bar{X}	S	F	p
Self-efficacy	Anatolian High School	31	2.70	0.76	0.986	.403
	Fine Arts High School	48	2.45	0.66		
	Private High School	8	3.15	0.90		
	Vocational High School	15	2.93	0.65		
Self-inefficacy	Anatolian High School	31	3.36	0.90	0.498	.685
	Fine Arts High School	48	3.45	0.66		
	Private High School	8	3.70	0.91		
	Vocational High School	15	3.58	0.93		
Psychological indicators	Anatolian High School	31	3.12	0.79	0.637	.593
	Fine Arts High School	48	3.02	0.69		
	Private High School	8	3.17	0.97		
	Vocational High School	15	3.33	0.76		
Total Scale	Anatolian High School	31	2.97	0.69	0.787	.504
	Fine Arts High School	48	3.04	0.56		
	Private High School	8	3.29	0.88		
	Vocational High School	15	3.19	0.60		

*p<.05

According to findings in Table 7 regarding students' mean scores of the Instrument Performance Self-Efficacy Belief Scale, there was no significant difference in general according to the type of high school graduated from variable [$F = 0.787$, $p > .05$]. Similarly, there was no significant difference in the mean score of the scale's subdimensions according to the type of high school graduated from variable ($p > .05$).

Fifth Sub-Problem Findings Regarding FFA Students' Scores of the Instrument Performance Self-Efficacy Belief Scale and Its Subdimensions According to the "Main Instrument Being Studied" Variable

Independent samples one-way analysis of variance (One Way Anova) was performed between students' mean scores of the Instrument Performance Self-Efficacy Belief Scale and its subdimensions and the main instrument being studied from variable.

The results of the independent samples one-way analysis of variance performed to determine whether there was a significant difference between the mean scores of the Instrument Performance Self-Efficacy Belief Scale and its subdimensions according to the main instrument being studied variable are presented in Table 8.

Table 8. The One Way Anova Test Results of the Mean Scores of the Instrument Performance Self-Efficacy Belief Scale and Its Subdimensions According to the Main Instrument Being Studied Variable

	Instrument	N	\bar{X}	S	F	p
Self-efficacy	Violin (a)	17	2.80	.66	1.612	.116
	Viola (b)	2	2.25	.91		
	Cello(c)	5	2.88	.89		
	Bağlama (d)	29	2.76	.71		
	Oud (e)	11	2.51	.52		
	Guitar (f)	7	3.10	.46		
	Flute (g)	14	2.73	.69		
	Piano (h)	3	3.43	.65		
	End-blown flute (i)	3	3.86	.77		
	Clarinet (j)	8	2.93	.66		
	Voice training (k)	3	3.36	1.15		
Self-inefficacy	Violin (a)	17	3.34	.76	2.146	.285
	Viola (b)	2	3.00	.28		
	Cello(c)	5	3.24	.95		
	Bağlama (d)	29	3.39	.70		
	Oud (e)	11	3.12	.80		
	Guitar (f)	7	4.05	.81		
	Flute (g)	14	3.28	.68		
	Piano (h)	3	3.53	1.55		
	End-blown flute (i)	3	4.33	.80		
	Clarinet (j)	8	3.70	.59		
	Voice training (k)	3	4.66	.30		
Psychological indicators	Violin (a)	17	3.16	.65	1.072	.392
	Viola (b)	2	3.10	.70		
	Cello(c)	5	2.76	.95		
	Bağlama (d)	29	3.04	.72		
	Oud (e)	11	2.76	.87		
	Guitar (f)	7	3.71	.70		
	Flute (g)	14	3.07	.57		
	Piano (h)	3	3.40	.87		
	End-blown flute (i)	3	3.00	1.31		
	Clarinet (j)	8	3.47	.63		
	Voice training (k)	3	3.00	1.21		
Total Scale	Violin (a)	17	3.02	.58	1.683	.097
	Viola (b)	2	2.65	.70		
	Cello(c)	5	2.94	.86		
	Bağlama (d)	29	2.99	.57		
	Oud (e)	11	2.73	.61		
	Guitar (f)	7	3.49	.56		
	Flute (g)	14	2.95	.56		
	Piano (h)	3	3.45	.90		
	End-blown flute (i)	3	3.76	.84		
	Clarinet (j)	8	3.26	.58		
	Voice training (k)	3	3.60	.70		

*p<.05

According to findings in Table 8 regarding students' mean scores of the Instrument Performance Self-Efficacy Belief Scale, there was no significant difference in general according to the main instrument being studied from variable [F = 1.683, p>.05]. Similarly, there was no significant difference in the mean score of the scale's subdimensions according to the main instrument being studied from variable (p>.05).

Sixth Sub-Problem Findings Regarding FFA Students' Scores of the Instrument Performance Self-Efficacy Belief Scale and Its Subdimensions according to the "Individual Instrument Practice Time" Variable

Independent samples one-way analysis of variance (One Way Anova) was performed between students' mean scores of the Instrument Performance Self-Efficacy Belief Scale and its subdimensions and the individual instrument practice time variable.

The results of the independent samples one-way analysis of variance performed to determine whether there was a significant difference between the mean scores of the Instrument Performance Self-Efficacy Belief Scale and its subdimensions according to the individual instrument practice time variable are presented in Table 9.

Table 9. The One Way Anova Test Results of the Mean Scores of the Instrument Performance Self-Efficacy Belief Scale and Its Subdimensions According to the Individual Instrument Practice Time Variable

	Individual Instrument Practice Time	N	\bar{X}	S	F	p	Significant Difference	Eta-square (η^2)
Self-efficacy	1 hour a day (a)	26	2.88	0.69	2.403	.000*	b-d c-d	0.185
	2 hours in a day (b)	16	3.18	0.54				
	More than 2 hours a day (c)	16	3.22	0.65				
	I don't practice everyday (d)	39	2.48	0.68				
	Other (e)	5	3.10	0.62				
Self-inefficacy	1 hour a day (a)	26	3.35	0.78	8.768	.000*	e-a b-d c-d	0.265
	2 hours in a day (b)	16	3.96	0.51				
	More than 2 hours a day (c)	16	3.78	0.65				
	I don't practice everyday (d)	39	3.07	0.69				
	Other (e)	5	4.48	0.86				
Psychological indicators	1 hour a day (a)	26	3.21	0.81	1.846	.009*	e-d	0.128
	2 hours in a day (b)	16	3.36	0.58				
	More than 2 hours a day (c)	16	3.30	0.81				
	I don't practice everyday (d)	39	2.79	0.63				
	Other (e)	5	3.68	0.90				
Total Scale	1 hour a day (a)	26	3.08	0.63	7.923	.000*	c-d b-d e-d	0.246
	2 hours in a day (b)	16	3.42	0.48				
	More than 2 hours a day (c)	16	3.38	0.52				
	I don't practice everyday (d)	39	2.70	0.54				
	Other (e)	5	3.59	0.64				

Students who marked **Other** stated "2 hours a week, 30 minutes a day, 40 minutes every day, 2-3 hours a week, 1 hour a week".

* p <.05

According to the findings obtained in Table 9, there was a significant difference between the mean scores of the total scale [$F = 7.923$, $p <.05$], the subdimension of self-efficacy [$F = 2.403$, $p <.05$], the subdimension of self-inefficacy [$F = 8.768$, $p <.05$], and the subdimension of psychological indicators [$F = 1.846$, $p <.05$] according to its subdimensions according to the individual instrument practice time variable. The variance homogeneity was examined in order to decide on the test to be performed to determine which groups had a significant difference. The Levene test results are presented in Table 10.

Table 10. Variance Homogeneity Test

	Levene Statistics	df1	df2	Sig (p)
Self-efficacy	.450	4	97	.772
Self-inefficacy	.646	4	97	.631
Psychological indicators	1.365	4	97	.252
Total Scale	.432	4	97	.785

According to the findings obtained in Table 10, in the interpretation of the significance value found as a result of the Levene test, if $\text{Sig.} > 0.05$, the variance of the groups is homogeneous and if $\text{Sig.} < 0.05$, the variance of the groups are different (Kilmen, 2015). According to Levene test results in Table 10, the variances of the subdimensions and the total scale were homogeneous ($p > 0.05$).

Since the group variances were equal, the Tukey test was performed to determine which groups had a significant difference.

According to Tukey test results, in the *self-efficacy* subdimension, there was a significant difference between the participants who responded with “2 hours a day” and “I don’t practice every day” in favor of the ones who responded with “2 hours a day” ($\bar{X} = 3.18$), and there was a significant difference between the participants who responded with “more than 2 hours a day” and “I don’t practice every day” in favor of the ones who responded with “more than 2 hours a day” ($\bar{X} = 3.22$). Based on the calculated effect size eta-squared coefficient, the individual instrument practice time variable had a large effect size in terms of self-efficacy ($\eta^2 = 0.185$).

In the *self-inefficacy subdimension*, there was a significant difference between the participants who responded with “other” and “1 hour a day” in favor of the ones who responded with “other” ($\bar{X} = 4.48$), there was a significant difference between the participants who responded with “2 hours a day” and “I don’t practice every day” in favor of the ones who responded with “2 hours a day” ($\bar{X} = 3.96$), and there was a significant difference between the participants who responded with “more than 2 hours a day” and “I don’t practice every day” in favor of the ones who responded with “more than 2 hours a day” ($\bar{X} = 3.88$). Based on the calculated effect size eta-squared coefficient, the individual instrument practice time variable had a *large* effect size in terms of self-inefficacy ($\eta^2 = 0.265$).

In the *psychological indicators* subdimension, there was a significant difference between the participants who responded with “other” and “I don’t practice every day” in favor of the ones who responded with “other” ($\bar{X} = 3.68$). Based on the calculated effect size eta-squared coefficient, the individual instrument practice time variable had a *medium* effect size in terms of psychological indicators ($\eta^2 = 0.128$).

According to *total scale* data, there was a significant difference between the participants who responded with “more than 2 hours a day” and “I don’t practice every day” in favor of the ones who responded with “more than 2 hours a day” ($\bar{X} = 3.38$), there was a significant difference between the participants who responded with “2 hours a day” and “I don’t practice every day” in favor of the ones who responded with “2 hours a day” ($\bar{X} = 3.42$), and there was a significant difference between the participants who responded with “other” and “I don’t practice every day” in favor of the ones who responded with “other” ($\bar{X} = 3.59$). Based on the calculated effect size eta-squared coefficient, the individual instrument practice time variable had a *large* effect size in terms of students’ instrument performance self-efficacy perceptions ($\eta^2 = 0.246$).

Seventh Sub-Problem Findings Regarding FFA Students’ Scores of the Instrument Performance Self-Efficacy Belief Scale and Its Subdimensions According to the “Individual Course Grade” Variable

Independent samples one-way analysis of variance (One Way Anova) was performed between students’ mean scores of the Instrument Performance Self-Efficacy Belief Scale and its subdimensions and the Instrument course grade variable.

The results of the independent samples one-way analysis of variance performed to determine whether there was a significant difference between the mean scores of the Instrument Performance Self-Efficacy Belief Scale and its subdimensions according to the Instrument course grade variable are presented in Table 11.

Table 11. The One Way Anova Test Results of the Mean Scores of the Instrument Performance Self-Efficacy Belief Scale and Its Subdimensions According to the Instrument Course Grade Variable

	Instrument Course Grade	N	\bar{X}	S	F	p	Significant Difference	Eta-square (η^2)
Self-efficacy	0-60 points (a)	8	2.01	0.53	5.970	.000*	c-a	0.197
	61-69 points (b)	18	2.67	0.89			d-a	
	70-79 points (c)	26	2.76	0.58			e-a	
	80-89 points (d)	26	2.91	0.61			e-b	
	90-100 points (e)	24	3.24	0.58				
Self-inefficacy	0-60 points (a)	8	2.47	0.47	10.707	.000*	d-a	0.306
	61-69 points (b)	18	3.17	0.81			e-a	
	70-79 points (c)	26	3.20	0.67			e-b	
	80-89 points (d)	26	3.73	0.67			e-c	
	90-100 points (e)	24	4.00	0.62				
Psychological indicators	0-60 points (a)	8	2.15	0.55	6.409	.009*	b-a	0.209
	61-69 points (b)	18	2.98	0.78			c-a	
	70-79 points (c)	26	2.96	0.68			d-a	
	80-89 points (d)	26	3.39	0.54			e-a	
	90-100 points (e)	24	3.38	0.77				
Total Scale	0-60 points (a)	8	2.16	0.38	10.545	.000*	d-a	0.303
	61-69 points (b)	18	2.88	0.70			b-a	
	70-79 points (c)	26	2.92	0.53			c-a	
	80-89 points (d)	26	3.24	0.47			e-a	
	90-100 points (e)	24	3.46	0.51			e-b	

*p<.05

According to the findings obtained in Table 11, there was a significant difference between the mean scores of the total scale [$F = 6.409$, $p < .05$], the subdimension of self-efficacy [$F = 5.970$, $p < .05$], the subdimension of self-inefficacy [$F = 10.707$, $p < .05$], and the subdimension of psychological indicators [$F = 1.846$, $p < .05$] according to the Instrument course grade variable. The variance homogeneity was examined in order to decide on the test to be performed to determine which groups had a significant difference. The Levene test results are presented in Table 12.

Table 12. Variance Homogeneity Test

	Levene Statistics	df1	df2	Sig (p)
Self-efficacy	2.454	4	97	.302
Self-inefficacy	.581	4	97	.510
Psychological indicators	1.356	4	97	.677
Total Scale	1.232	4	97	.255

According to the Levene test results presented in Table 12, the variance of the subdimensions and the total scale were ($p > 0.05$). The Tukey test was performed to determine which groups had a significant difference.

According to Tukey test results, in the *self-efficacy* subdimension, there was a significant difference between the participants whose Instrument course grade was “70-79 points” and “0-60” in favor of the ones whose grade was “70-79” ($\bar{X} = 2.76$), there was a significant difference between the participants whose Instrument course grade was “80-89 points” and “0-60” in favor of the ones whose grade was “80-89” ($\bar{X} = 2.91$), there was a significant difference between the participants whose

Instrument course grade was “90-100 points” and “0-60” in favor of the ones whose grade was “90-100” (\bar{X} = 3.24), and there was a significant difference between the participants whose Instrument course grade was “90-100 points” and “60-69” in favor of the ones whose grade was “90-100” (\bar{X} = 3.24). Based on the calculated effect size eta-squared coefficient, the Instrument course grade variable had a *large* effect size in terms of self-efficacy (η^2 =0.197).

According to Tukey test results, in the *self-inefficacy* subdimension, there was a significant difference between the participants whose Instrument course grade was “80-89 points” and “0-60” in favor of the ones whose grade was “80-89” (\bar{X} = 3.73), there was a significant difference between the participants whose Instrument course grade was “90-100 points” and “0-60” in favor of the ones whose grade was “90-100” (\bar{X} = 4.00), there was a significant difference between the participants whose Instrument course grade was “90-100 points” and “61-69” in favor of the ones whose grade was “90-100” (\bar{X} = 4.00), and there was a significant difference between the participants whose Instrument course grade was “90-100 points” and “70-79” in favor of the ones whose grade was “90-100” (\bar{X} = 4.00). Based on the calculated effect size eta-squared coefficient, the Instrument course grade variable had a *large* effect size in terms of self-inefficacy (η^2 =0.306).

According to Tukey test results, in the *psychological indicators* subdimension, there was a significant difference between the participants whose Instrument course grade was “61-69 points” and “0-60” in favor of the ones whose grade was “61-69” (\bar{X} = 2.98), there was a significant difference between the participants whose Instrument course grade was “70-79 points” and “0-60” in favor of the ones whose grade was “70-79” (\bar{X} = 2.96), there was a significant difference between the participants whose Instrument course grade was “80-89 points” and “0-60” in favor of the ones whose grade was “80-89” (\bar{X} = 3.39), and there was a significant difference between the participants whose Instrument course grade was “90-100 points” and “0-60” in favor of the ones whose grade was “90-100” (\bar{X} = 3.38). Based on the calculated effect size eta-squared coefficient, the Instrument course grade variable had a *large* effect size in terms of psychological indicators (η^2 =0.209).

According to *total scale* data, there was a significant difference between the participants whose Instrument course grade was “80-89 points” and “0-60” in favor of the ones whose grade was “80-89” (\bar{X} = 3.24), there was a significant difference between the participants whose Instrument course grade was “61-69 points” and “0-60” in favor of the ones whose grade was “61-69” (\bar{X} = 2.88), there was a significant difference between the participants whose Instrument course grade was “70-79 points” and “0-60” in favor of the ones whose grade was “70-79” (\bar{X} = 2.92), there was a significant difference between the participants whose Instrument course grade was “90-100 points” and “0-60” in favor of the ones whose grade was “90-100” (\bar{X} = 3.46), there was a significant difference between the participants whose Instrument course grade was “90-100 points” and “61-69” in favor of the ones whose grade was “90-100” (\bar{X} = 3.46, and there was a significant difference between the participants whose Instrument course grade was “90-100 points” and “70-79” in favor of the ones whose grade was “90-100” (\bar{X} = 3.46). Based on the calculated effect size eta-squared coefficient, the Instrument course grade variable had a *large* effect size in terms of students’ instrument performance self-efficacy perceptions (η^2 =0.303).

Eighth Sub-Problem Findings Regarding FFA Students’ Scores of the Instrument Performance Self-Efficacy Belief Scale and Its Subdimensions according to the "University Being Attended" Variable

Independent samples t-test was performed between students’ mean scores of the Instrument Performance Self-Efficacy Belief Scale and its subdimensions and the university being attended variable.

The results of the independent samples t-test performed to determine whether there was a significant difference between the mean scores of the Instrument Performance Self-Efficacy Belief Scale and its subdimensions according to the university being attended variable are presented in Table 13.

Table 13. The t-Test Results of the Mean Scores of the Instrument Performance Self-Efficacy Belief Scale and Its Subdimensions According to the University Being Attended Variable

	University	N	\bar{X}	S	sd	t	p
Self-efficacy	Kırşehir Ahi Evran University Neşet Ertaş FFA	45	2.89	.60	100	0.667	.506
	Nevşehir Hacı Bektaş Veli Univeristy FFA	57	2.80	.79			
Self-inefficacy	Kırşehir Ahi Evran University Neşet Ertaş FFA	45	3.60	.77	100	1.632	.106
	Nevşehir Hacı Bektaş Veli Univeristy FFA	57	3.35	.80			
Psychological indicators	Kırşehir Ahi Evran University Neşet Ertaş FFA	45	3.20	.77	100	1.027	.307
	Nevşehir Hacı Bektaş Veli Univeristy FFA	57	3.04	.73			
Total Scale	Kırşehir Ahi Evran University Neşet Ertaş FFA	45	3.15	.58	100	1.194	.235
	Nevşehir Hacı Bektaş Veli Univeristy FFA	57	2.99	.67			

*p<.05

According to the findings presented in Table 13, there was no significant difference between the students' mean scores of the Instrument Performance Self-Efficacy Belief Scale and its subdimensions according to the university being attended variable ($p>.05$).

RESULT AND DISCUSSION

According to FFA students' scores on the Instrument Performance Self-Efficacy Belief Scale, which is the first sub-problem of the research, they have an "undecided" self-efficacy perception. In another study conducted only with the cello students who were attending fine arts high schools using the same scale, Albayrak and Bulut (2020) revealed that the instrument performance self-efficacy perceptions of the cello students were at a medium level. On the other hand, the study conducted by Şentürk and Bölek (2019) on music teacher candidates' instrument self-efficacy put forth that music teacher candidates' item scores from the Instrument Performance Self-Efficacy Belief Scale were slightly above the mean. Considering the similarities in the aforementioned results, it is possible to state that most of the students who receive instrument training have an average self-efficacy perception.

When the Instrument Performance Self-Efficacy Belief Scale mean total and subdimension scores of the music students studying at the FFA were examined according to the year variable, which is the second sub-problem of the research, no significant difference was found between the mean scores and the year variable. In their study "The Role Of Self-Efficacy In A Musical Performance Examination: An Exploratory Structural Equation Analysis," McCormick and McPherson (2003) reported that the self-efficacy of 332 instrument students studying at Trinity College in London were negatively affected as they moved from lower grades to upper grades because of the increasingly challenging exams. They found that their self-efficacy was due to their needs. In the study conducted by Şentürk and Bölek (2019) examining the musical teacher candidates' instrument self-efficacy, no significant relationship was found between the Instrument Performance Self-Efficacy Belief Scale and the year variable. In the study of Babacan and Babacan (2017), no significant difference was found in the piano performance self-efficacy perceptions of the students receiving music education according to the grade level. In another study, Jelen (2017) revealed that as the grade level increased, the piano performance self-efficacy levels of the music teacher candidates also increased. Although it is possible to say that these differences in study results are due to the differences in the quality and quantity of the sample groups, it is possible to explain it with the self-confidence that comes with the experience gained as the grade level increases. As a matter of fact, experience in instrument education is important for students to see how effective the education is, and to reinforce the qualities that a student

should have such as self-confidence, motivation, awareness, and anxiety control (Yiğit and Duruer, 2018).

According to the Instrument Performance Self-Efficacy Belief Scale mean total and subdimension scores of the music students studying at the FFA are examined according to the gender variable, which is the third sub-problem of the research, there was no significant difference between the scores in general. In the study where the same scale was administered, Girgin (2017) put forth that female music teacher candidates' general mean of instrument performance self-efficacy was lower than male music teacher candidates, and a significant difference was also found between gender and candidates' instrument performance self-efficacy beliefs. Özmenteş (2014), in his study on the music self-efficacy of students who were receiving vocational music training, found that male students had higher self-efficacy perceptions than female students. Coşkun Şentürk and Bölek (2019) also concluded in their study that male students scored higher than female students in terms of instrument self-efficacy perceptions of music teacher candidates. Furthermore, Nielsen (2004) determined that male students had higher self-efficacy beliefs than female students because male students participate in applied practices related to their instruments more than female students. It may be possible to attribute the significant difference in the aforementioned studies to the high number of participants in the sample groups.

When the Instrument Performance Self-Efficacy Belief Scale mean total and subdimension scores of the music students studying at the FFA were examined according to the type of high school graduated from variable, which is the fourth sub-problem of the research, there was no statistically significant difference between the scores. Similar to the findings of the present study, the study conducted by Girgin (2017) with teacher candidates determined no significant difference between the Instrument Performance Self-Efficacy Belief Scale mean total and subdimension scores according to the type of high school graduated from variable. Similarly, the study by Şentürk and Bölek (2019) examining the music teacher candidates' instrument self-efficacy and the study by Şeker (2014) examining the relationship between music teacher candidates' academic self-efficacy levels and their attitudes towards instrument playing determined that music teacher candidates' instrument self-efficacy did not significantly differ according to candidates graduating from fine arts high schools or other schools. On the other hand, Birer and Sonsel (2013) examined music teacher candidates' professional self-efficacy according to various variables. They determined a statistically significant difference between the type of high school graduated from variable and the scale subdimensions of "mastery of the curriculum" and "perception of self-efficacy regarding the level of education" in favor of the fine arts high school graduates. It is possible to attribute the lack of a significant difference in most of the studies to the difference in the number of students participating in them. As a matter of fact, there is a significant difference between the number of fine arts high school graduates and other high school graduates in almost every study.

When the Instrument Performance Self-Efficacy Belief Scale mean total and subdimension scores of the music students studying at the FFA were examined according to the main instrument being studied variable, which is the fifth sub-problem of the research, there was also no statistically significant difference between the scores. Similarly, Özmenteş (2014) did not find a significant relationship between students' musical self-efficacy and the musical instruments they were studying in his study with students who were received music education. However, in their study examining the music teacher candidates' instrument self-efficacy, Şentürk and Bölek (2019) compared the mean scores obtained from the scale and the subdimensions of the scale with instrument groups. They determined a positive significant difference between the students learning classical Western instruments (violin, viola, cello, and contrabass) and the students learning popular and Turkish instruments (guitar, bağlama, kanun) in favor of the students learning popular and Turkish instruments. Researchers attributed this result to students studying string instruments having a better stage experience and consequently having higher self-confidence, as they use their instruments more frequently in income-oriented activities.

When the Instrument Performance Self-Efficacy Belief Scale mean total and subdimension scores of the music students studying at the FFA were examined according to the instrument practice time variable, which is the sixth sub-problem of the research, there was a significant difference in general between the participants who responded with “more than 2 hours a day” and “I don’t practice every day” in favor of the ones who responded with “more than 2 hours a day”, there was a significant difference between the participants who responded with "2 hours a day" and " I don’t practice every day" in favor of the ones who responded with “2 hours a day”, and there was a significant difference between the participants who responded with between "other" and " I don’t practice every day" in favor of the ones who responded with “other”. In addition, a significant relationships were found in many subdimensions. On the other hand, Özmenteş (2014) did not find a significant relationship between students' musical self-efficacy and their daily instrument practice time in his study with students who were receiving music education. In the study conducted by Coşkun Şentürk, Kapçak and Kapçak Işıksungur (2018), and Babacan, Yüksel, Küçükosmanoğlu and Babacan (2017), it was determined that the individual instrument study habits of the music teacher candidates were at a good level. In another study conducted by Üstün (2019), it was seen that students' regular and daily work contributed positively to mindfulness and stress control. In the study where the same scale was administered, Girgin (2017) determined significant differences between Instrument Performance Self-Efficacy Belief Scale mean total and subdimension scores and the daily instrument practice time, and they explained this with the increase in music teacher candidates’ self-efficacy beliefs as the time they spent on instrument increased.

When the instrument performance self-efficacy mean scores of the music students studying at the FFA were examined according to the instrument course grade variable, which is the seventh sub-problem of the research, there were significant differences in the subdimension of “self-efficacy”, the subdimension of “self-inefficacy”, the subdimension of “psychological indicators”, and the total scale. According to the research findings of Babacan and Babacan (2017), it was determined that as the academic success grade in the piano course increases, the perception of piano performance self-efficacy increases in direct proportion. Coşkun Şentürk and Bölek (2019) also found that there is a moderately significant positive correlation between the individual instrument course grade point averages and the instrument self-efficacy average score. Sarı and Uslu (2020) examined music teacher candidates’ self-efficacy perceptions on Turkish music courses in terms of various variables and determined a significant difference for both Turkish Folk and Turkish Classical Music courses. When the literature is examined, it has been found that there are studies in which different results were obtained with self-efficacy and instrument success grade. For example, Küçük (2011) concluded that there was no significant relationship between the self-efficacy perception of the students participating in the study and their academic achievement. In another study by Küçük and Engin (2021), students' instrument performance self-efficacy beliefs did not show a significant difference according to the individual instrument success grade variable. In this context, it can be said that high self-efficacy perception affects course success positively, and course success affects self-efficacy perception positively. However, as expected, there may not always be a positive and significant relationship between the academic success of the student and the instrument performance self-efficacy belief. It is possible to explain this situation with the anxiety or high level of expectation experienced by the student.

When the Instrument Performance Self-Efficacy Belief Scale mean total and subdimension scores of the music students studying at the FFA were examined according to the university being attended variable, which is the eighth sub-problem of the research, there was also no statistically significant difference between the scores. In his study on the music self-efficacy of students who were receiving music training, Özmenteş (2014) did not find a significant difference between university students’ self-efficacy perceptions and the universities they attended, similar to the findings of the present study. Likewise, Şeker (2014) investigated the relationship between music teacher candidates’ academic self-efficacy levels and their attitudes towards instrument playing and found no significant difference between the participating music teacher candidates’ academic self-efficacy levels and the schools they attended. On the other hand, Sarı and Uslu (2020), in their study conducted in 10 universities in total, determined that music teacher candidates’ self-efficacy perceptions towards the

Turkish Folk Music courses differed statistically significantly compared to the university the candidates were attending. The researchers stated that the self-efficacy perception, which differed between different universities, was because of the differences in the geographical region where the universities were located, the socio-cultural structures of the universities, the musical environment the universities had, and the differences in the types of music being played/listened in in-class and extracurricular activities. In addition, it can be said that the fact that the study was conducted in more universities compared to other studies also affected the results.

RECOMMENDATIONS

The following recommendations were made based on the results of the present study. Undergraduate students who are receiving instrument training can be encouraged to participate more frequently in individual and collective musical activities aimed at increasing their performance self-efficacy during their undergraduate education. Experimental studies examining the relationship between self-efficacy perception and stage anxiety, personal psychological characteristics, etc. can be conducted. A sample instrument training lesson design including strategies, methods, and techniques to increase the instrument performance self-efficacy perception levels of individuals with low perception, can be developed. Similarly, action researches following the development of instrument performance self-efficacy perceptions of individuals longer and in a detailed manner can be conducted. Experimental studies examining the effect and permanence of instrument performance of self-efficacy perception by determining different learning-teaching approaches that can be used in instrument training.

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